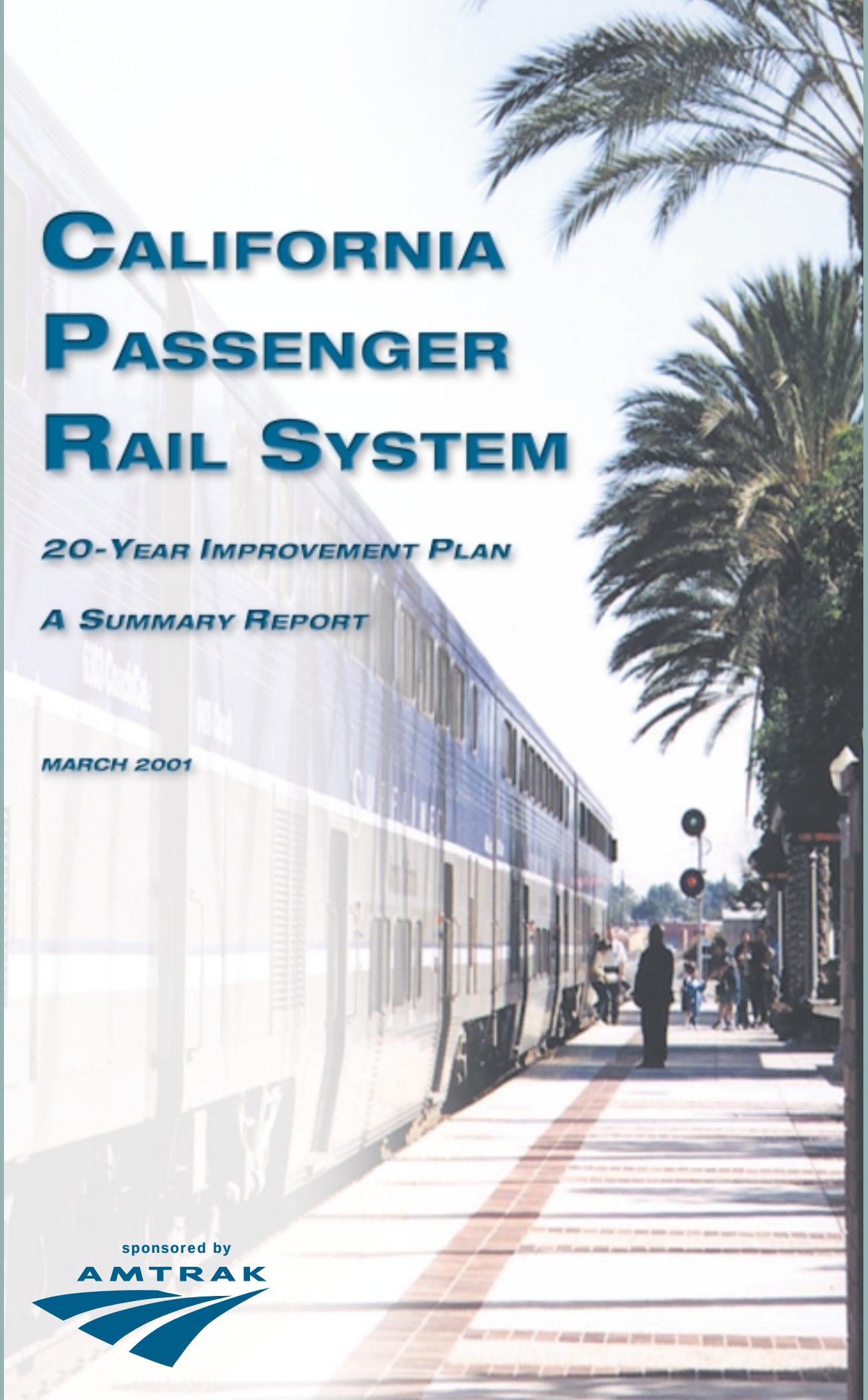

California Passenger Rail System

20-Year Improvement Plan

A Summary Report

MARCH 2001

sponsored by

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ACKNOWLEDGEMENTS

Amtrak salutes the partners that worked so cooperatively to develop the 20-year rail improvement plan, including:

- Altamont Commuter Express (ACE)
- Burlington Northern & Santa Fe Railway (BNSF)
- California Department of Transportation (Caltrans)
- California High-Speed Rail Authority (CA HSRA)
- Capitol Corridor Joint Powers Authority (CCJPA)
- Coast Rail Coordinating Council (CRCC)
- Council of Fresno County Government
- Federal Railroad Administration (FRA)
- Kern Council of Governments
- North County Transit District (NCTD)
- Peninsula Corridor Joint Powers Board (PCJPB)
- San Joaquin Valley Rail Committee (SJVRC)
- San Luis Obispo Council of Governments (SLOCOG)
- Santa Barbara County Association of Governments (SBCAG)
- Santa Clara Valley Transportation Authority (VTA)
- Southern California Intercity Rail Group (SCIRG)
- Southern California Regional Rail Authority (SCRRA)
- Transportation Agency for Monterey County (TAMC)
- Union Pacific Railroad (UPRR)

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- Holmes and Narver, Inc.
- Korve Engineering, Inc.

executive summary

moving to maintain mobility

TRANSPORTATION SYSTEMS OUTPACED BY GROWTH

Communities across the nation are identifying traffic congestion as one of the greatest obstacles to continued prosperity and quality of life. California is not immune to this challenge. Although there has been sustained investment in highways, public transit, rail, airports and waterways, California's transportation network is at a crossroads: transportation demand has exceeded capacity. Thanks to the state's burgeoning economy, growing population, and changes in travel patterns, traffic congestion has escalated dramatically. The Texas Transportation Institute (TTI) ranks several of California's metropolitan areas as among the most severely gridlocked.[1] In its survey of the most congested areas in the nation, TTI ranks the Los Angeles region as the most congested, the San Francisco Bay Area and the San Diego region rank in the top ten, and San Jose and San Bernardino-Riverside are among the top twenty most congested regions.

Driver Delays in the 68 Largest Metropolitan Areas Increased 29 Percent Between 1992 and 1997.[2]

250,000 New Flights Between 1997 and 2000 Created Over 400,000 Delays, Cancellations, and Diversions.[3]

This constraint on mobility threatens to undermine California's economic health and quality of life. A national leader in technology, manufacturing, and agriculture, California has the eighth largest economy in the world.[4] The state is also blessed with important natural and environmental resources. To maintain its competitive edge and quality of life, California must improve its transportation system to keep pace with current and projected economic and population growth. By 2020, the state's population is expected to grow by nearly 11 million people to 45 million[5] — a jump of more than 32 percent — which is the equivalent of absorbing the current population of Washington, Oregon, Idaho, and Montana combined.[6]

Since 1982, highway delays have tripled throughout the

nation's 68 largest metropolitan regions.[7] According to Caltrans, "traffic congestion on California urban freeways is increasing an average of 10 percent a year, costing motorists nearly $8 million in lost time and excess fuel use each day."[8] Airline traffic is also on an ever-increasing upswing: airline delays have grown by more than 33 percent in just the last five years.[9] The FAA has noted "delays in 2000 increased 20 percent over those in 1999, and set a record."[10] If the state is to continue to move people and freight efficiently and effectively while maintaining its quality of life, California's transportation network must be able to accommodate this growth.

A balanced transportation system leads to the greatest return on public investment.

Rail Adds Capacity Cost Effectively

Congestion is not limited to highways and airports. California's network of rail corridors faces growing congestion, hindering the ability of passenger and freight rail operators to extend service. Improving the state's rail system is a realistic, cost-effective solution for enhancing and expanding travel capacity for passengers and freight in congested transportation and economic corridors.

"Rail is a vital component of California's transportation system. Increasingly, it represents the most efficient and practical means of reducing congestion in our urban transportation corridors."

Hon. Gray Davis,
Governor of California.

A 20-Year Plan to Ensure Mobility

The state's economy and quality of life are too important to leave California's rail network to chance. As more communities consider rail as a cost-effective solution to ease highway congestion, it is important to have an integrated plan — a plan that addresses passenger and freight rail operations as well as the needs of local communities, the region, and the entire state.

Amtrak, the State of California, commuter and freight railroads, local and regional planning agencies, and the communities they serve have worked together on a major community-based planning initiative. The focus of this initiative was to achieve statewide consensus on passenger rail planning, enhance a complementary relationship with growing passenger and freight rail services, and promote sustained

sources of funding for rail corridor development. The result of this planning initiative is the *California Passenger Rail System 20-Year Improvement Plan*, which presents a statewide blueprint for transportation investments that will result in faster, more frequent, and convenient rail service. By addressing the challenges shared by passenger and freight rail, the 20-year plan:

- Establishes goals for the state's existing and emerging rail corridors.
- Creates a comprehensive vision statement representing local, regional, and statewide consensus on rail transportation investments.
- Lists the improvements required to achieve each corridor's goals.
- Identifies and prioritizes specific improvement projects that will achieve the greatest return on investment in terms of increasing capacity, train frequency, reliability, speed, and safety.
- Optimizes the integration of all passenger rail services to ease transfers.
- Specifies the funding required at both the corridor and project level to improve infrastructure and purchase trains.
- Provides a blueprint to guide future rail planning and investment decisions in the immediate (up to 3 years), near term (4 to 8 years), and long term (9 to 20 years).

Coordination Leads to Consensus

Amtrak and its partners established four regional task forces whose mission was to review existing service levels, define future service needs, and identify projects for improving commuter, recreational, and business travel as well as freight rail operations. Each task force was formulated to focus on one of the four rail corridors in the state:

- Capitol Corridor: This corridor connects the San Jose, Oakland/San Francisco, Sacramento, Roseville, and Auburn regions. Service provided on this corridor includes Amtrak intercity service (operated in partnership with the Capitol Corridor Joint Powers Authority and Caltrans) and Altamont Commuter Express (ACE) service.
- Pacific Surfliner Corridor: This corridor connects the San Diego, Los Angeles, Santa Barbara, and San Luis Obispo regions. Service provided on this corridor includes Amtrak intercity service (operated in partnership with Caltrans) as well as Metrolink and Coaster commuter services.
- San Joaquin Valley Corridor: This corridor connects the Oakland/San Francisco, Sacramento, Stockton, Bakersfield, and Los Angeles regions with Amtrak intercity service operated in partnership with Caltrans.
- Coast Corridor: This corridor connects the San Francisco Bay Area, Salinas, San Luis Obispo, Santa Barbara, and the Los Angeles regions. Service provided on the corridor includes Amtrak intercity (*Coast Starlight*) service, Caltrain, and Metrolink commuter services.

The four task forces worked with local, regional, and state leaders to ensure that the transportation improvements offered a "value-added" benefit to the community — i.e., a benefit that went beyond transportation. Rob Krebs, chairman of the Burlington Northern Santa Fe Corporation, explains the value-added nature of the improvements by noting that ***"these projects are important to the communities they serve. Each addresses a community need — whether it's air-pollution reduction, traffic congestion mitigation, downtown redevelopment, or other community quality-of-life benefits."***

In addition to addressing the improvements required by the existing corridors, the 20-year plan identifies projects needed to provide service in these emerging corridors: Los Angeles to Las Vegas; Los Angeles to Palm Springs/Coachella Valley; San Francisco to Monterey; Auburn/Colfax to Reno; and Sacramento to Redding. It also addresses improvements required to expand Metrolink service to the Antelope Valley, San Bernardino, and Riverside.

Planning Partners

Altamont Commuter Express (ACE)
The Burlington Northern & Santa Fe Railway (BNSF)
California Department of Transportation (Caltrans)
California High-Speed Rail Authority (CA HSRA)
Capitol Corridor Joint Powers Authority (CCJPA)
Coast Rail Coordinating Council (CRCC)
North County Transit District (Coaster)
Peninsula Corridor Joint Powers Board (Caltrain)
San Joaquin Valley Rail Committee (SJVRC)
Santa Clara Valley Transportation Authority (VTA)
Southern California Intercity Rail Group (SCIRG)
Southern California Regional Rail Authority (Metrolink)
Transportation Agency for Monterey County (TAMC)
Union Pacific Railroad (UPRR)

Shared Investments = Shared Benefits

California has a long history of commitment to rail transportation. In just the last decade alone, state and federal investments have resulted in new passenger rail routes, extensions of existing routes, and new train equipment and stations. These investments have improved the state's four rail corridors to the benefit of intercity, commuter, and freight services.

In California, both intercity and commuter rail travel at top speeds between 79 and 90 miles per hour. Both operate on tracks shared with freight carriers.

Commuter Rail Travel Peaks in the Morning and Evening When Passengers Go To and From Work

REGIONAL TASK FORCES

Capitol Corridor

Steve Cohn, *Chair*
Sacramento City Council

Thomas Blalock
President – Bay Area Rapid Transit

Doras Briggs
Citizen Representative – Amtrak West Coast Advisory Committee

Sam Dardick
Nevada County Supervisor

Jim Lawson
Milpitas City Council

John Mayer
Sparks (Nevada) City Council

Scott Perry
Mayor, City of Colfax

Pacific Surfliner Corridor

Julianne Nygaard, *Chair*
Carlsbad City Council

Robert Arthur
Los Angeles County Metropolitan Transportation Authority

Arthur Brown
Buena Park City Council

Sarah Catz
Orange County Transportation Authority

Dave Ekborn
Grover Beach City Council

Joe Kellejian
Solana Beach City Council

William Kleindienst
Mayor, City of Palm Springs

Robert Nolan
Mayor, City of Upland

Richard Weinberg
Carpinteria City Council

San Joaquin Valley Corridor

Stanley Thurston, *Chair*
Merced City Council

Robert Cabral
San Joaquin County Supervisor

Judith Case
Fresno County Supervisor

Illa Collin
Sacramento County Supervisor

Jim Costa
State Senator

Jane Dolan
Butte County Supervisor

George Gaekle
Stanislaus County

John Gioia
Contra Costa County Supervisor

Alene Taylor
Kings County Supervisor

Molly Wilson
Shasta County Supervisor

Coast Corridor

Dave Potter, *Chair,*
Monterey County Supervisor

Blanca Alvarado
Santa Clara County Supervisor

Robert Arthur
Los Angeles County Metropolitan Transportation Authority

James Beall
Santa Clara County Supervisor

Richard Boomer
Hollister City Council

Bill Davis
Mayor, City of Simi Valley

Joni Gray
Santa Barbara County Supervisor

Arthur Lloyd
Caltrain Board Member

Frank Mecham
Paso Robles City Council

Oscar Rios
Watsonville City Council

Michael Yaki
Supervisor, City of San Francisco

Members of All 4 Task Forces

DJ Mitchell, *The Burlington Northern & Santa Fe Railway*
Peter Montague, *Federal Railroad Administration*
Michael Ongerth, *Union Pacific Railroad*
Warren Weber, *Caltrans*

Intercity rail, which is operated by Amtrak, provides service between cities and regions, making intermediate stops at several cities along the route. Commuter rail travels shorter distances, generally from outlying suburbs to city centers at peak business hours.

All passenger rail services discussed in this 20-year plan use tracks that are also used to transport freight. Most of these tracks are owned by The Burlington Northern & Santa Fe Railway (BNSF) or Union Pacific Railroad (UPRR). These private companies must meet their obligations to shippers of goods, while maintaining safe conditions for the public in communities along their rights-of-way. Because freight mobility — transporting goods to market quickly and efficiently — is critical to the state's economic health, planning for California's passenger rail system must include strong cooperation with the freight railroads. This cooperation is essential to ensure the growth of the state's rail system and the continued free flow of goods statewide. Accommodating rail growth requires additional tracks and signals as well as measures to increase safety for those who live or work near (or travel across) busy rail corridors.

◆

"In the new economy," says DJ Mitchell of the BNSF, "we're all on 'Internet time.' Our customers are demanding goods be delivered at an ever-faster pace, and that's a big challenge for freight railways."

◆

Planning for Prudent Investments and Positive Benefits

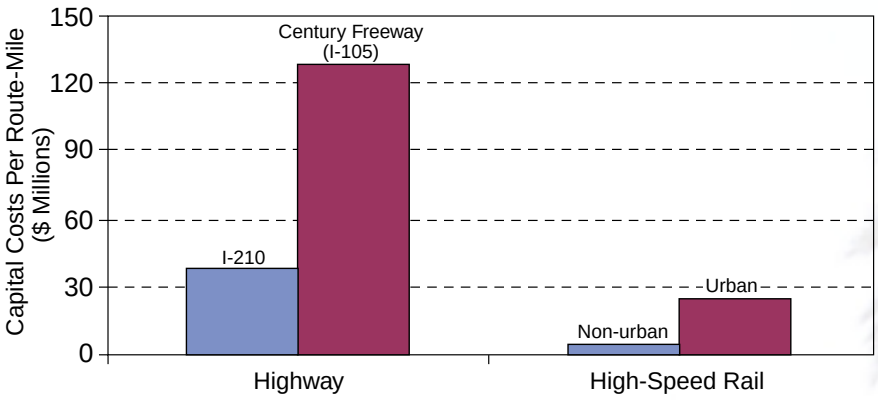
The *California Passenger Rail System 20-Year Improvement Plan* details a $10.1 billion program of improvements over 20 years that, when fully implemented, will meet existing and planned intercity passenger, commuter, and freight service levels by reducing trip times, expanding capacity, and allowing rail vehicles to operate at speeds up to 110 mph and, where appropriate, up to 125 mph.

The improvements affect every component of rail infrastructure: trains, tracks, ties, roadbed, interlockings, switches, bridges, tunnels, grade crossings, communications, signals, catenary, stations, parking, and maintenance/layover facilities. The plan presents an investment strategy that proposes implementing the improvements in three increments:

- Immediate (in the next 3 years)
- Near-term (4 to 8 years)
- Vision (9 to 20 years)

In a state where highway projects have run upwards of $100 million per mile, the 20-year rail improvement plan will link California's regions through corridor rail service that can be implemented for $20 million per mile in urban segments and $4 million in non-urban areas.[11]

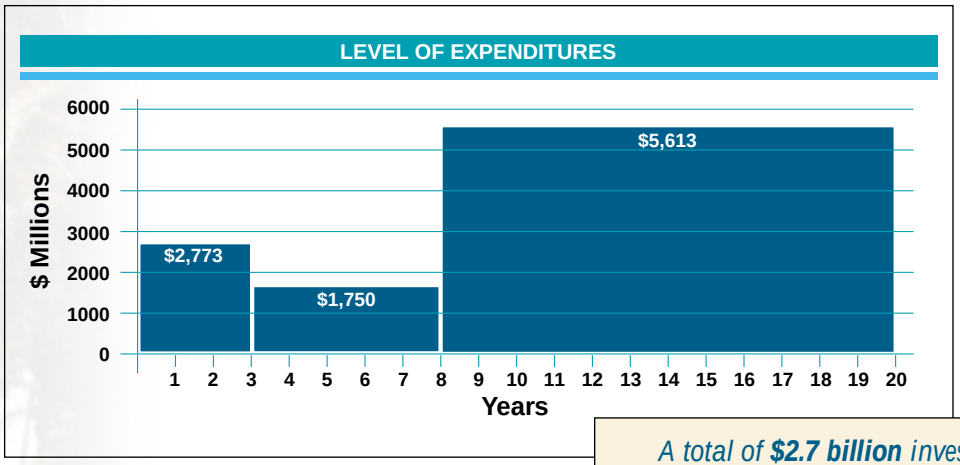
California Rail Improvements Are a Fraction of the Cost of California Highway Improvements



Safety Enhanced by Improved Lighting,Ventilation, Access/Egress, Fencing, and Grade Separations

The improvements proposed in the California Passenger Rail System 20-Year Improvement Plan will be implemented in accordance with a straightforward investment strategy that shares the costs and benefits associated with improving capacity, enhancing operational reliability, reducing trip times, increasing service frequency, and improving safety.

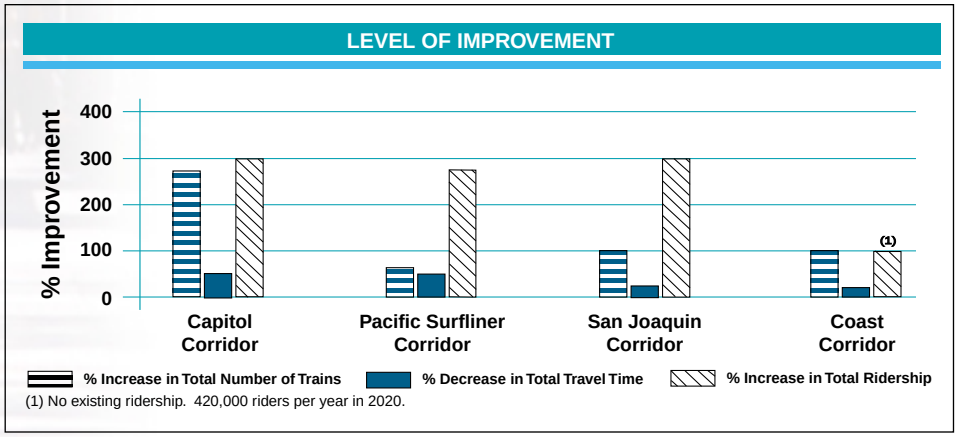
Phased Investment Strategy Yields Tangible Benefits



*A total of **$2.7 billion** invested over the next one to three years.*

*A total of **$1.7 billion** invested over the next four to eight years.*

*A total of **$5.6 billion** invested over the next nine to twenty years.*



Results of the Plan

By working together on this 20-year plan to improve California's mixed-use rail corridors, all rail customers — shippers, commuters, business, and recreational travelers — will reap the benefits of additional trains, faster trip times, greater rail capacity, and more frequent service throughout the state. The communities affected by these results will reap the benefits as well. Most important, the 20-year plan benefits the state's entire transportation network — rail corridors, highways, mass transit systems, airports, and waterways — by fully developing the potential for rail and providing relief to other constrained travel modes.

The improvements for each corridor are discussed in the ensuing chapters of this summary. Their implementation will result in such benefits as:

As Gil Mallery, President of Amtrak West, notes, "Amtrak can play a significant role in meeting future transportation challenges in California. Through phased improvements bolstered by a strategic vision developed with local, regional, and state leaders, passenger rail will provide solutions for enhancing quality of life in communities, while supporting economic growth."

Benefits Snapshot

- 21 additional intercity roundtrips throughout the state.
- Service increases that include:
  - Hourly service between San Diego and Los Angeles.
  - Expanded San Joaquin Valley service to Sacramento via additional trains.
  - Hourly service between San Jose and Sacramento.
  - Expanded service to the state's fastest-growing regions.
  - Corridor service connecting downtown Los Angeles and downtown San Francisco.
- Faster trip times on all corridors.
- Increased speeds (90, 110, and 125 mph where appropriate).
- 300-percent increase in intercity rail ridership (exclusive of commuter rail ridership).
- Shared investments/shared benefits derived from passenger and freight rail owners and operators working in a coordinated and cooperative manner to improve service, reliability, and safety.
- Protected competitiveness of the ports by extending the benefits of improvements like the Alameda Rail Corridor.
- Rail improvements designed with community standards in mind for improved safety, aesthetics, and mobility.
- Enhanced grade-crossing safety as well as better mobility for California's communities.
- Preservation of environmental resources including improved air quality and less reliance on natural energy sources.

[1] Texas Transportation Institute, Urban Mobility Study, 1999.
[2] ibid.
[3] Federal Aviation Administration.
[4] California Department of Finance.
[5] ibid.
[6] U.S. Census Bureau.
[7] Texas Transportation Institute, Urban Mobility Study, 1999.
[8] California Department of Transportation, Highway Congestion Monitoring Report, February 19, 1999.
[9] Bureau of Transportation Statistics.
[10] New York Times, 5 February 2001, National edition.
[11] Amtrak 2001 Strategic Business Plan, p. 5.

capitol corridor

hyperlinking sacramento, bay area, and san jose

Fastest Growing Passenger Rail Corridor in the Nation

By connecting the Silicon Valley, the San Francisco Bay Area, and the state capital, the Capitol Corridor provides an increasingly vital component of California's transportation system. Capitol Corridor trains offer travelers a safe and comfortable environment in which to read, work, or relax free of the stress associated with the ever-increasing traffic congestion on Interstates 80, 680, 580, and 880. Now serving 768,000 passengers a year, the 172-mile-long corridor connects San Jose, Oakland/San Francisco, Sacramento, and the foothill communities northeast of Sacramento. Service on the corridor consists of seven daily roundtrips between Oakland/San Francisco and Sacramento, four between San Jose and Oakland/San Francisco, and one between Sacramento and Auburn.

Capitol Corridor Trains Offer a Safe and Comfortable Environment Free of Stress Associated with Highway Congestion

In addition to passenger rail, the Union Pacific Railroad, which owns the track and underlying right-of-way, operates freight service throughout the corridor.

With a 41-percent increase in ridership during Federal Fiscal Year 1999-2000, the Capitol Corridor is Amtrak's fastest-growing service in the nation. The corridor's importance as a vital component of California's transportation system is best illustrated by recent service expansions, including a 5th and 6th train between Oakland/San Francisco and Sacramento (late 1998/early 1999), a 4th train between Oakland/San Francisco and San Jose (February 2000), and a 7th train between Oakland/San Francisco and Sacramento (February 2000).

The primary objective of the 20-year plan for the Capitol Corridor is to provide hourly service between San Jose, Oakland, San Francisco, and Sacramento to meet the exploding demand.

Benefits Checklist

Within 20 years, the Capitol Corridor will reap significant benefits including:

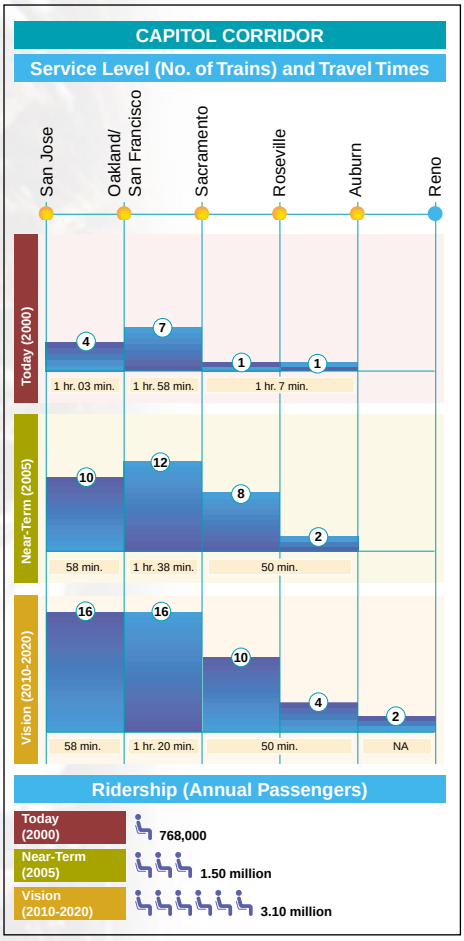
- 300-percent increase in intercity ridership.
- Hourly service between San Jose and Sacramento.
- 12 new roundtrips between San Jose and Oakland.
- 9 new roundtrips from Oakland to Sacramento.
- 9 new roundtrips from Sacramento to Roseville (3 of these trips will go beyond Roseville to Auburn).
- Reduced travel time (up to 38 minutes) between San Jose and Sacramento.
- Improved Altamont Commuter Express service.
- Enhanced freight mobility.
- Increased commuter and freight rail service.
- Capacity provided for service over the Dumbarton Bridge.

Investing In Rail Improves Mobility and Relieves Congestion

The San Francisco Bay Area and the Silicon Valley are among the most congested areas in the nation, according to a study conducted by the Texas Transportation Institute. Helping to alleviate this congestion by expanding passenger rail service frequency, reducing travel times, and increasing ridership in the Capitol Corridor are the primary goals of the 20-year improvement plan, whose recommendations are to:

- Dramatically expand service by providing hourly service between San Jose, Oakland/San Francisco, and Sacramento as well as increased service to the foothill communities northeast of Sacramento. Service will be expanded by providing:
  - 10 daily roundtrips between San Jose and Oakland/San Francisco by 2005 and 16 upon plan completion.
  - 12 roundtrips between Oakland/San Francisco and Sacramento by 2005 and 16 upon plan completion.
  - 8 roundtrips east of Sacramento to Roseville in 2005 and 10 upon plan completion.
  - 2 roundtrips beyond Roseville to Auburn/Colfax in 2005 and 4 by 2020.
- Reduce travel time between San Jose and Sacramento by 20 percent to less than two-and-a-half hours.

Faster, More Frequent Service Boosts Ridership



This series of recommendations will increase Capitol Corridor ridership to 3.1 million passengers and provide the highest level of service to the congested Bay Area communities. Ultimately, the 20-year improvement plan envisions incorporating the rail lines serving Reno, Salinas, Monterey, and Hollister into the coordinated vision.

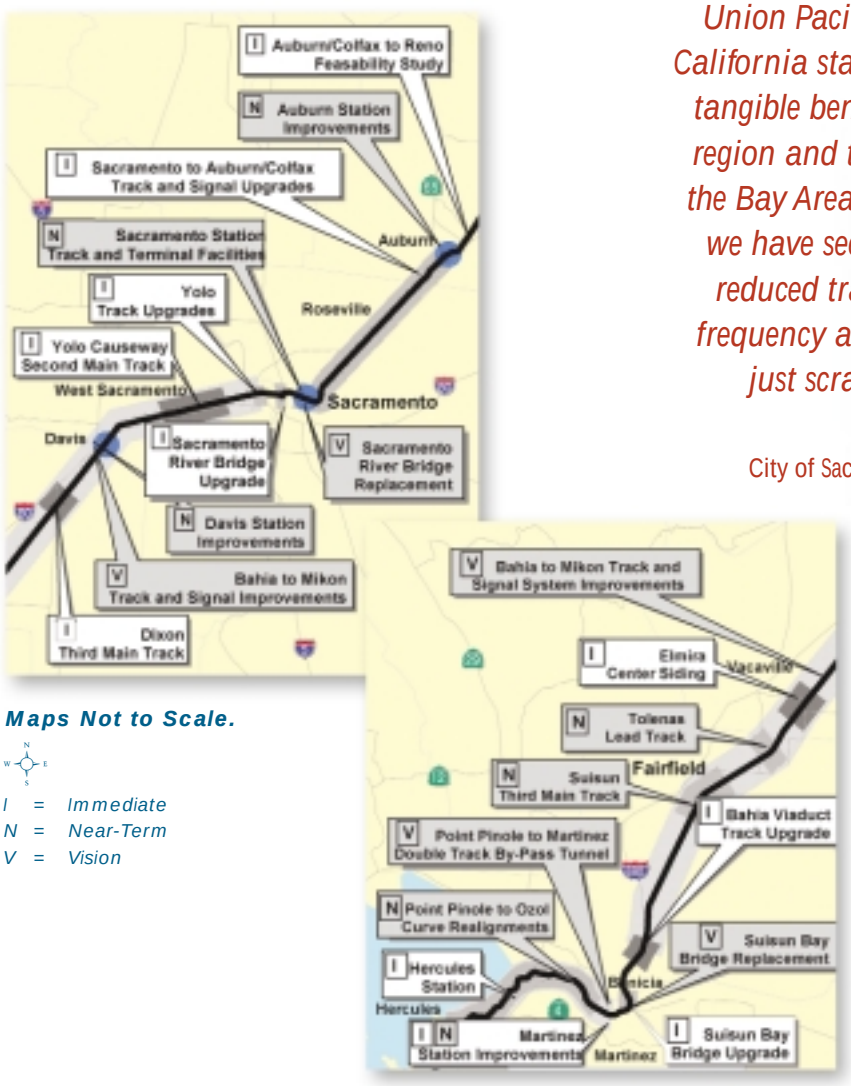
Common Challenges/ Shared Needs

The Capitol Corridor is shared by several service providers whose operations serve local, intercity, regional, and state passenger and freight needs. In addition to intercity service, which is operated by a partnership between Amtrak, the CCJPA, and Caltrans, commuter rail service is operated by Altamont Commuter Express (ACE) and Caltrain, while the Santa Clara Valley Transportation Authority (VTA) is considering offering commuter service between Union City and San Jose. The San Mateo County Transit District (SamTrans) and the San Mateo County Transportation Authority are studying the feasibility of operating passenger rail over the Dumbarton Bridge. Other providers are evaluating commuter rail service between Davis and Auburn/ Colfax as well as Solano County and Oakland/San Francisco. In addition, Capitol Corridor trains connect to BART in Richmond as part of the comprehensive transportation network in the Bay Area.

Freight rail plays a prominent role in the operations of the Capitol Corridor. The Union Pacific Railroad (UPRR), the owner of the right-of-way and trackage, serves five cargo ports between Sacramento and Oakland as well as oil refineries lining the shores of San Pablo Bay. In addition to its strategic importance to UPRR's freight operations, the Capitol Corridor is an essential link to UPRR's Interstate 5 Pacific Coast Corridor and transcontinental Central Corridor. Other freight rail providers — short-line operators in Suisun, Richmond, Davis, and West Sacramento —depend on segments of the Capitol Corridor as interchange points.

The Capitol Corridor 20-year plan includes the addition of tracks, such as third main track segments and yard bypass tracks, between Oakland and Roseville. These projects will have the added benefit of reducing delays to freight trains by allowing both freight and passenger trains to quickly pass slower-moving trains without stopping. In the congested San Jose to Oakland segment of the corridor, the proposed improvements, including a fourth main track between Santa Clara and San Jose, will minimize conflicts between Capitol Corridor, Caltrain, ACE, or future VTA and UPRR trains.

Improvements Implemented in Phases



Maps Not to Scale.

I = Immediate
N = Near-Term
V = Vision

"I am excited about this team effort between the Capitol Corridor, Amtrak, Union Pacific Railroad, and other California stakeholders that will bring tangible benefits to the Sacramento region and the entire corridor from the Bay Area to the Sierras. Recently we have seen increased ridership, reduced travel time, and greater frequency and reliability, but we're just scratching the surface."

Steve Cohn,
City of Sacramento Council Member

Projects Prioritized for Phased Implementation

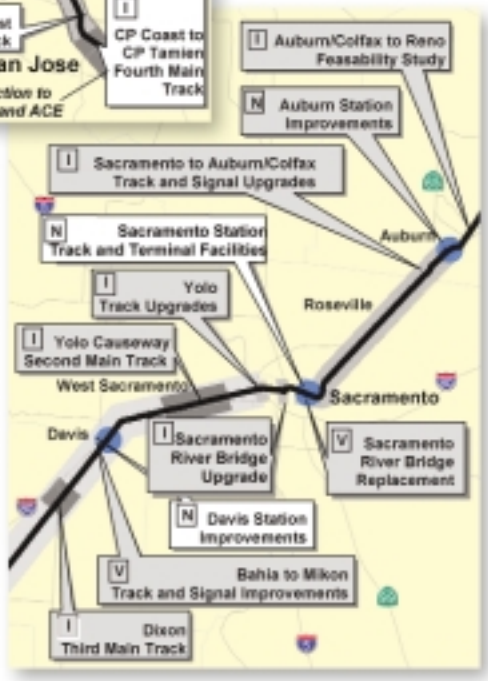
Projects proposed in the 20-year plan will begin to improve travel times and reliability between Auburn, Sacramento, Oakland/San Francisco, and San Jose within the next two to three years. Within this same time frame, capacity and reliability will be increased between Oakland and San Jose, as additional trains are put into service and travel times are reduced. Refer to the *California Rail Passenger System 20-Year Improvement Plan Technical Report* for more detailed project descriptions.

Immediate Improvements (Implemented Within the Next 3 Years)

Project Number	Project Name	Total Cost*
CA-01	Auburn/Colfax to Reno Feasibility Study	$1.5
CA-02	Sacramento to Auburn/Colfax Track and Signal Upgrades	25.0
CA-03	Suisun Bay and Sacramento River Bridge Upgrades	2.2
CA-04	Yolo Track Upgrades	0.2
CA-05	Yolo Causeway Second Main Track	22.8
CA-06	Dixon Third Main Track	19.7
CA-07	Bahia Viaduct Track Upgrade	2.3
CA-08	Hercules Station	3.0
CA-09	Emeryville Station Improvements	4.0
CA-10	Oakland [Jack London Square] Station Capacity Improvements	22.0
CA-11	Oakland to San Jose Track Upgrades	6.6
CA-12	Hayward Siding Extension	4.4
CA-13	Alviso to CP Coast Second Main Track	17.8
CA-14	CP Coast to CP Tamien Fourth Main Track	76.2
CA-15	Miscellaneous Improvements to Stations	15.6
CA-16	Rolling Stock	33.0
CA-17	Passenger Service Enhancements	3.0
	Total Immediate Investment	**$259.3**

**in millions, based on year 2000 dollars.*

Phased Implementation of Improvements Maximizes Current Funding Sources and Identifies Future Funding Sources



Maps Not to Scale.

I = Immediate
N = Near-Term
V = Vision

Near-Term Improvements (Implemented Within the Next 4 to 8 Years)

Project Number	Project Name	Total Cost*
CA-18	Sacramento Station Track and Terminal Facilities	$24.4
CA-19	Tolenas Lead Track	5.5
CA-20	Suisun Third Main Track	10.8
CA-21	Point Pinole to Ozol Curve Realignments	88.2
CA-22	Emeryville to Point Pinole Third Main Track	20.8
CA-23	Miscellaneous Improvements to Stations	19.6
CA-24	Rolling Stock	15.0
CA-25	Safety and Mobility Enhancements	14.0
	Total Near-Term Investment	**$198.3**

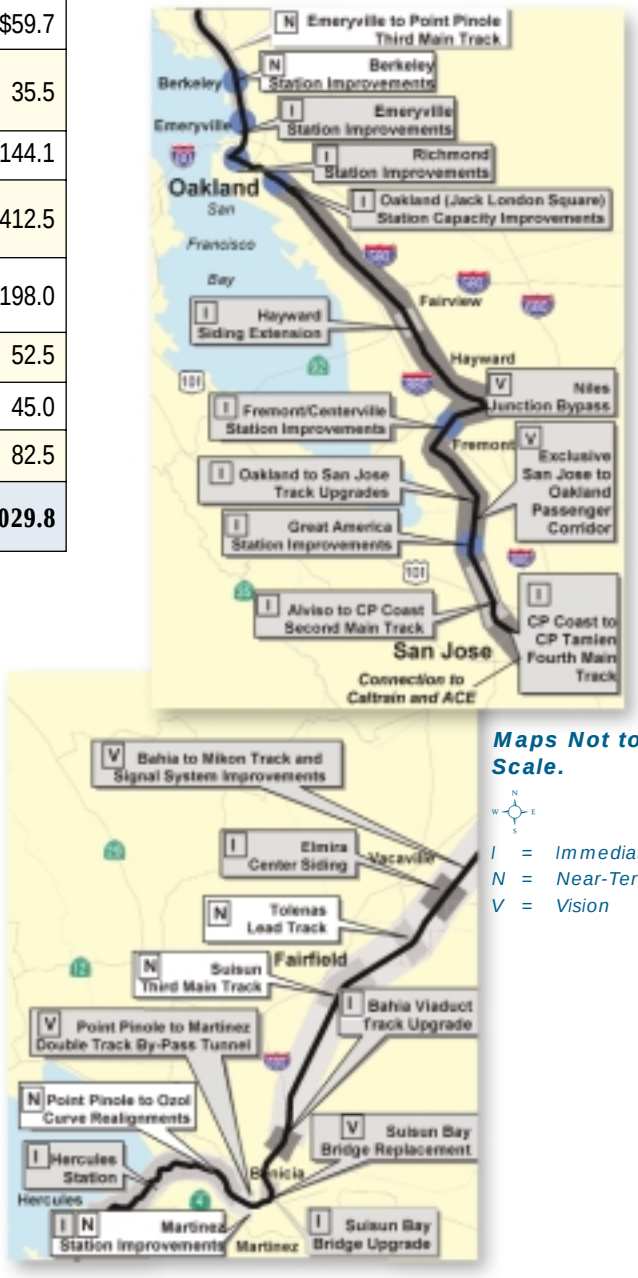
**in millions, based on year 2000 dollars.*

Vision Improvements (Implemented Within the Next 9 to 20 Years)

Project Number	Project Name	Total Cost*
CA-26	Sacramento River Bridge Replacement	$59.7
CA-27	Bahia to Mikon Track and Signal Improvements	35.5
CA-28	Suisun Bay Bridge Replacement	144.1
CA-29	Point Pinole to Martinez Double-Track Bypass Tunnel	412.5
CA-30	Exclusive San Jose to Oakland Passenger Corridor	198.0
CA-31	Niles Junction Bypass	52.5
CA-32	Rolling Stock	45.0
CA-33	High-speed Dispatching System	82.5
	Total Vision Investment	**$1,029.8**

**in millions, based on year 2000 dollars.*

20-Year Plan Offers Improvements to Accommodate Current and Future Operations



Maps Not to Scale.

I = Immediate
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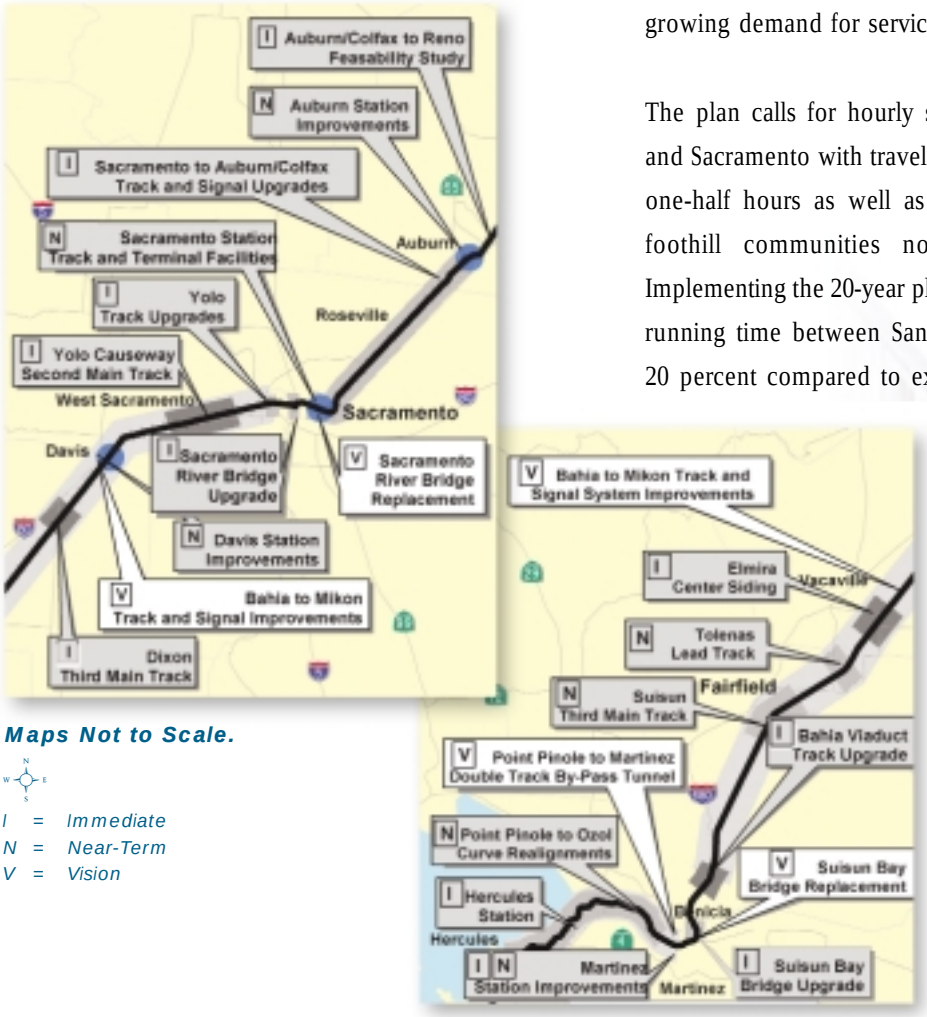
Improvements Will Increase Mobility Along Highly Congested Corridors



Maps Not to Scale.

I = Immediate
N = Near-Term
V = Vision

Plan Produces Results

This planning effort used stakeholder outreach, ridership modeling tools, and operational and engineering analyses to develop the appropriate train frequencies, travel times, operational reliability, and supporting infrastructure improvements required to meet the growing demand for service in the Capitol Corridor.

The plan calls for hourly service between San Jose and Sacramento with travel time of less than two and one-half hours as well as increased service to the foothill communities northeast of Sacramento. Implementing the 20-year plan will reduce the average running time between San Jose and Sacramento by 20 percent compared to existing travel times. With the increased service and reduced travel times, annual ridership will increase from the current 768,000 to over 3.10 million. The 20-year plan identifies $1.5 billion for infrastructure improvements, additional trains, and further analysis for route extensions.

capitol corridor

With Amtrak, CCJPA, UPRR, and ACE trains on the Capitol Corridor, it is essential that the projects proposed in the 20-year plan be implemented to meet future service goals. The plan calls for five additional roundtrips running on this corridor by 2005 and four additional roundtrips by plan completion. Several immediate projects, such as the restoration of the second track on the Yolo Causeway (CA-05), will increase capacity and improve operational reliability on the corridor. Near-term projects, such as the third main track between Emeryville and Point Pinole (CA-22), will enhance the existing infrastructure to create additional capacity and allow additional trains. Certain vision projects, such as the bridge replacement in Suisin Bay (CA-28), will have a significant impact on reducing travel times and improving reliability in the corridor. The 20-year plan provides a blueprint for meeting the needs of the communities along the Capitol Corridor by providing faster, more frequent train service and increased capacity as well as improved mobility for all rail users.

pacific surfliner

serving southern california's key coastal regions

Most Developed Service in State — Second in U.S.

The Pacific Surfliner Corridor is the state's most highly developed service. Second only to Amtrak's Northeast Corridor in ridership, the service carries more than 1.5 million passengers annually. From San Diego to San Luis Obispo, the Pacific Surfliner Corridor serves Southern California's key coastal population centers and connects two of the most congested regions in the country — Los Angeles and San Diego. Maintaining mobility in this busy economic corridor is essential. The 351-mile corridor also contains important environmental resources as well as some of the state's most spectacular scenic coastlines. Expansion of rail service along the corridor will preserve these important assets and improve air quality, while helping to mitigate the growing highway congestion.

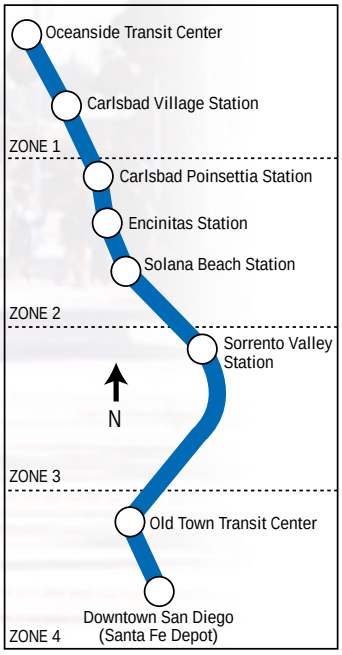
Pacific Surfliner Corridor is the Second Most Heavily Traveled Amtrak Service in the Nation

Southern California's rail network — an important component of the regional transportation system — is extremely congested. Unprecedented growth in passenger trips between cities, increased commuter trips to employment centers, and an explosion of international trade through ports in the Los Angeles and San Diego area have resulted in more trains and more gridlock. The rail network's previous excess capacity—which in the early 1990s had allowed the creation of commuter operations and the expansion of intercity rail — has seen unprecedented growth in freight and passenger traffic, saturating available rail capacity. Additional service cannot be implemented unless capacity is increased.

The Texas Transportation Institute ranks Los Angeles as the most congested area in the U.S. and ranks the San Diego region as among the top 10 most congested areas.

The 20-year vision for the Pacific Surfliner Corridor envisions hourly service between San Diego and Los Angeles with a trip time of less than two hours. The plan also calls for expanded service between Los Angeles and San Luis Obispo with a trip time of 4 hours and 15 minutes. Traveling at speeds up to 110 mph where appropriate, ridership along the corridor will grow to 6 million passengers annually. The 20-year vision also provides the potential to significantly increase capacity for Metrolink and Coaster trains.

Coaster Pledges Greater Capacity and Flexibility to Meet Needs of Communities It Serves



Amtrak, Caltrans, and rail stakeholders are working together to expand double tracking over the entire corridor, with third and fourth main tracks in selected locations. This benefit to intercity, commuter, and freight carriers will allow all service providers to meet their long-term needs of greater flexibility and capacity.

Added Capacity Benefits Metrolink's Operations

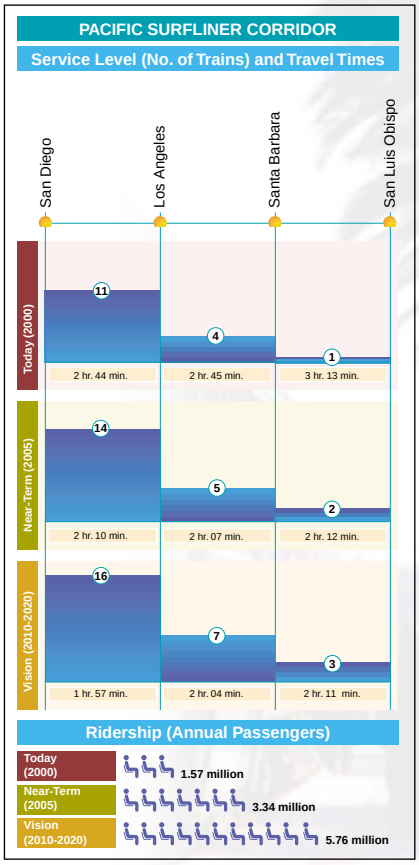
Near-term improvements, to be implemented within the next 3 to 8 years, will add much-needed capacity and allow Amtrak, Metrolink, and Coaster to operate a greater number of trains more efficiently through parts of Ventura, Los Angeles, Orange, and San Diego Counties.

Service Expansions and Reduced Travel Times Maintain Mobility

The Pacific Surfliner Corridor has three segments: San Diego-Los Angeles, Los Angeles-Santa Barbara, and Santa Barbara to San Luis Obispo. Different service levels are proposed for each segment:

- Service between San Diego and Los Angeles will be expanded from the current 11 daily roundtrips to 14 within the next five years and ultimately to 16 daily roundtrips once the 20-year vision is implemented.
- Los Angeles and Santa Barbara will be served by 5 daily roundtrips in the next five years and 7 in the long term.
- Trip times between Los Angeles and Santa Barbara will be reduced by almost 25 percent, from the current 2 hours and 45 minutes to just over 2 hours at plan implementation.
- Two daily roundtrips will be added in the next five years to extend service north to San Luis Obispo. A third roundtrip will be added in the long term.
- Trip time from Santa Barbara to San Luis Obispo will be reduced by nearly 32 percent, from the current 3 hours and 13 minutes to 2 hours and 11 minutes at plan implementation.

Service Levels and Ridership Will Increase Throughout the Corridor While Travel Times Decrease



Benefits Checklist

Within 20 years, the Pacific Surfliner Corridor will realize significant benefits, including:

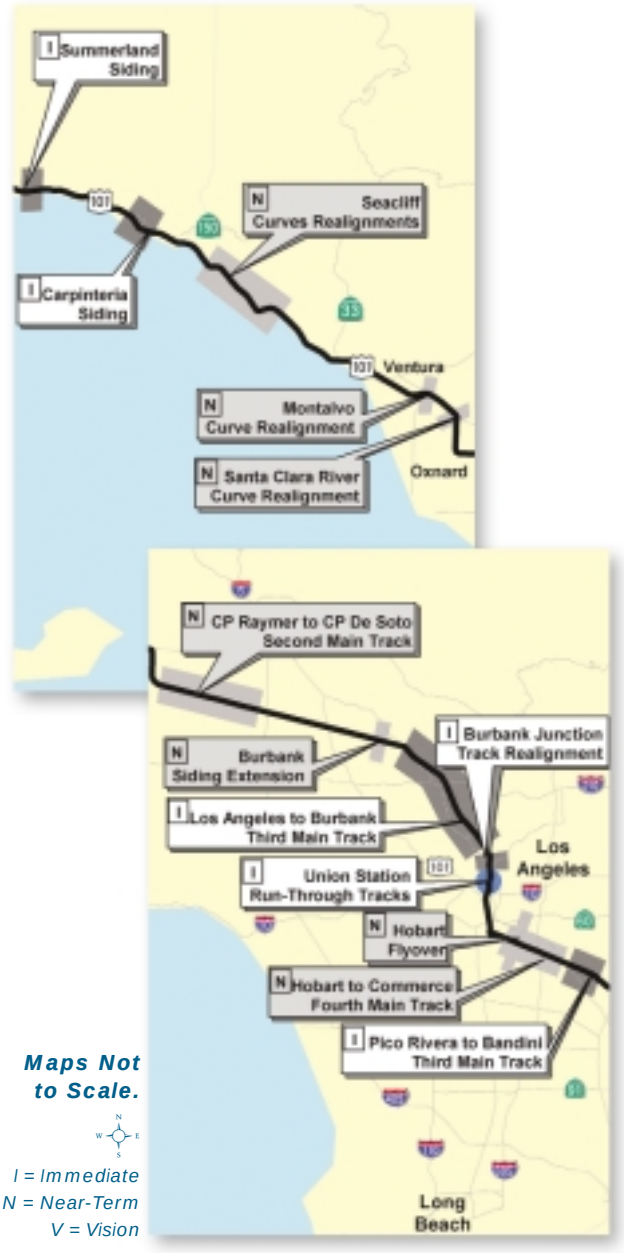
- 270-percent increase in intercity ridership.
- Hourly service between Los Angeles and San Diego.
- 5 new roundtrips between Los Angeles and San Diego.
- 3 new roundtrips to Santa Barbara.
- 2 new roundtrips to San Luis Obispo.
- Reduced schedules by as much as 1 hour.
- Improved commuter service.
- Improved Amtrak *Coast Starlight* service.
- Enhanced freight mobility.

Freight Rail Also Benefits From Corridor Improvements

Freight rail will also benefit from improvements along the Pacific Surfliner Corridor. Freight rail is a key component of rail traffic in the Southern California corridor, particularly in the San Diego-Los Angeles segment north of Fullerton. As Southern California has grown and prospered, the need to transport goods into the area has increased. Two of the busiest ports in the country — the Ports of Long Beach and Los Angeles — are heavily dependent on the Burlington Northern Santa Fe (BNSF) and Union Pacific (UPRR) to move cargoes from Asia and the Pacific region to Midwest and Eastern markets and from the Pacific Rim to Europe. Port traffic is also growing: July 2000 saw a 25-percent increase in intermodal shipments from the previous year.

The main lines of UPRR and BNSF heading east out of the Los Angeles Basin are helping to sustain California's prosperity and productivity by providing vital mobility and efficient distribution of its products. As a 21st century network of rail service — intercity and commuter passenger rail as well as freight rail — is built in Southern California, the planning and implementation of this network must be cooperatively developed with freight, commuter, and intercity railroads to ensure efficient and reliable operations that meet the needs of passengers and producers to, from, and within California.

Freight Rail Helps Sustain California's Prosperity and Productivity by Providing Vital Mobility and Efficient Distribution of Products

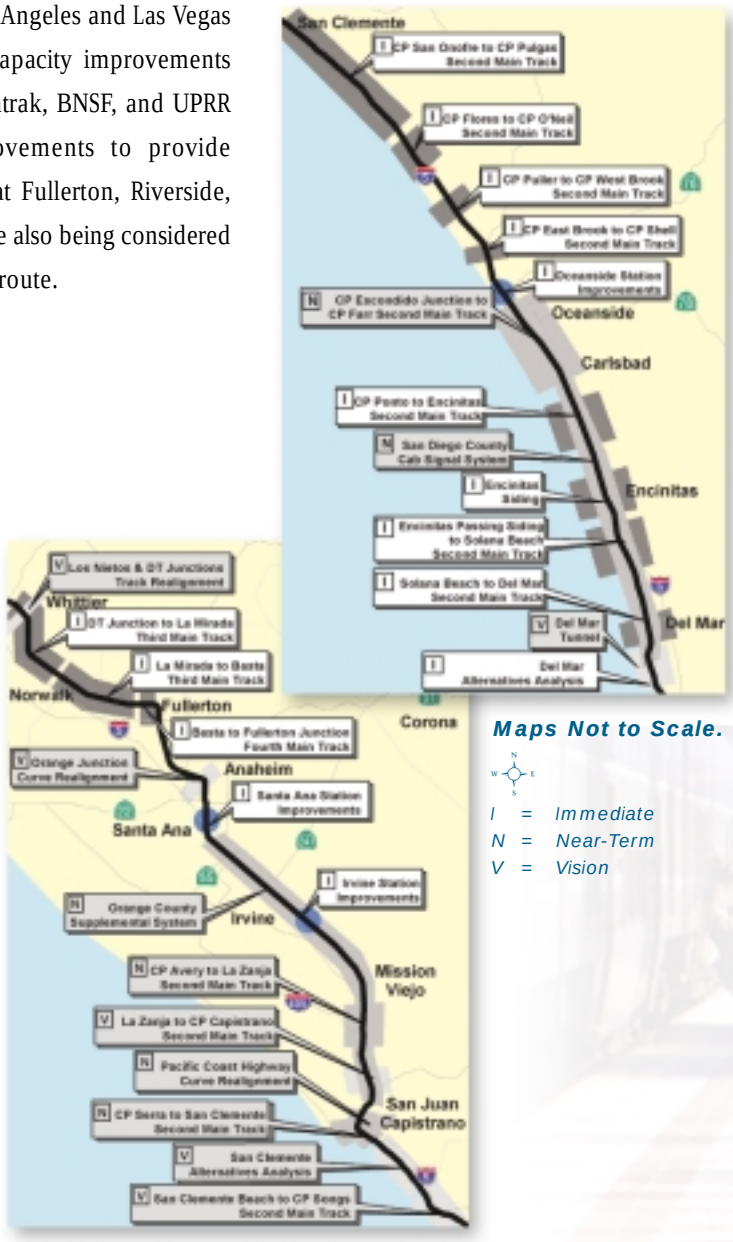


Maps Not to Scale.

I = Immediate
N = Near-Term
V = Vision

New Routes Offer New Opportunities

Passenger service between Los Angeles and Las Vegas will begin once station and capacity improvements are completed and already Amtrak, BNSF, and UPRR are studying capacity improvements to provide additional roundtrips. Stops at Fullerton, Riverside, San Bernardino, and Barstow are also being considered for the Los Angeles-Las Vegas route.



Improvements Will Result in a 21st-Century Passenger and Freight Rail Network in Southern California

Maps Not to Scale.

I = Immediate
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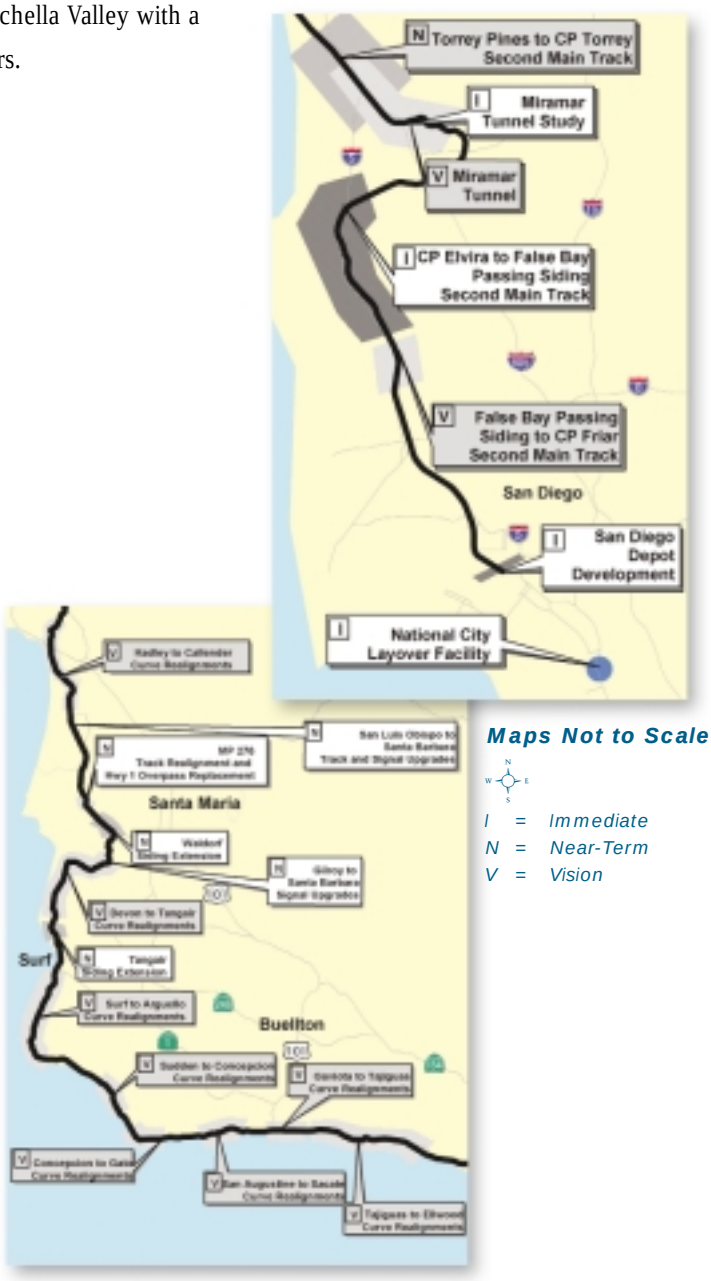
In the last decade, three studies have been conducted to determine the feasibility of passenger service from Los Angeles to the Coachella Valley using the UPRR freight corridor. Within the next three years, efforts will be made to initiate one roundtrip train between Los Angeles and the Coachella Valley with a travel time of less than three hours.

Upgrades Will Make Train Running Times More Competitive With Automobile Travel



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Capacity Critical to Curbing Congestion

Southern California's rail network is a critical component of the region's transportation system, but the track in this sector of the state is extremely congested. Intercity and commuter trips have increased to unprecedented levels and international trade through the Ports of Long Beach and Los Angeles has exploded. But with 41 percent of the railroad between San Diego and Los Angeles configured in single track, capacity is constrained. Relieving congestion on shared corridors is a critical priority if near-term goals of additional service, increased reliability, and reduced trip times are to be achieved. Working together in partnership with the communities, these goals can be achieved, while also protecting important environmental resources along the coast. The 20-year plan identifies the following immediate, near-term, and vision projects that are specifically designed to provide capacity to allow for additional trains, improved reliability, and faster trip times. Refer to the *California Rail Passenger System 20-Year Improvement Plan Technical Report* for more detailed project descriptions.

Immediate Improvements (Implemented Within the Next 3 Years)

Project Number	Project Name	Total Cost*
PS-01	Summerland Siding	$10.0
PS-02	Carpinteria Siding	7.7
PS-03	Burbank Junction Track Realignment	4.3
PS-04	Los Angeles to Burbank third Main Track	99.9
PS-05	Union Station Run-Through Tracks	335.4
PS-06	Los Angeles to Fullerton Junction Third Main Track • Commerce to DT Junction Third Main Track (PS-06A) • DT Junction to La Mirada Third Main Track (PS-06B) • La Mirada to Basta Third Main Track (PS-06C)	 30.0 30.6 28.7
PS-07	Basta to Fullerton Junction Fourth Main Track	74.0
PS-08	Santa Ana Station Improvements	4.8
PS-09	Irvine Station Improvements	12.0
PS-10	CP San Onofre to CP Pulgas Second Main Track	27.9
PS-11	CP Flores to CP O'Neil Second Main Track	6.2
PS-12	CP Puller to CP West Brook Second Main Track	30.4
PS-13	CP East Brook to CP Shell Second Main Track	10.4
PS-14	Oceanside Station Improvements	13.0
PS-15	CP Ponto to Encinitas Passing Siding Second Main Track	29.3
PS-16	Encinitas Passing Siding	3.0
PS-17	Encinitas Passing Siding to Solana Beach Second Main Track	72.4
PS-18	Solana Beach to Del Mar Second Main Track	18.1
PS-19A	San Clemente Alternatives Analysis	1.0
PS-19B	Del Mar Alternatives Analysis	1.0
PS-20A	Sorrento to Miramar Curve Realignment and Second Track	31.7
PS-20B	Miramar Tunnel Study	2.0
PS-21	CP Elvira to False Bay Siding Second Main Track	23.8
PS-22	San Diego or National City Layover Facility	22.0
PS-23	San Diego Depot Development	15.0
PS-24	Rolling Stock	30.0
PS-25	Passenger Service Enhancements and New Route Studies	4.0
	Total Immediate Investment	**$978.6**

**in millions, based on year 2000 dollars.*

Improvements Contribute to Reducing Congestion on the Heavily Traveled I-5 Corridor

Near-Term Improvements (Implemented Within the Next 4 to 8 Years)

Project Number	Project Name	Total Cost*
PS-26	San Luis Obispo to Santa Barbara Signal Upgrades	$150.4
PS-27	San Luis Obispo to Santa Barbara Track and Signal Upgrades	199.5
PS-28	Tangair Siding Extension	12.5
PS-29	Seacliff Curves Realignment	5.1
PS-30	Montalvo Curve Realignment	0.6
PS-31	Santa Clara River Curve Realignment	2.9
PS-32	CP West Camarillo Curve Realignment	2.7
PS-33	CP Posas to MP 423 Second Main Track	27.0
PS-34	Strathearn Siding Curve Realignment	0.1
PS-35	Simi Valley to CP Strathern Second Main Track	22.3
PS-36	CP Raymer to CP DeSoto Second Main Track	24.5
PS-37	Burbank Siding Extension	4.8
PS-38	Hobart Flyover	67.6
PS-39	Hobart to Commerce Fourth Main Track	17.3
PS-40	Orange County Supplemental System	10.6
PS-41	CP Avery to La Zania Second Main Track	17.9
PS-42	Pacific Coast Highway Curve Realignment	2.9
PS-43	CP Serra to San Clemente Second Main Track	24.6
PS-44	San Diego County Cab Signal System	3.2
PS-45	CP Escondido Junction to CP Farr Second Main Track	29.5
PS-46	Torrey Pines to CP Torrey Second Main Track	110.3
PS-47	Safety and Mobility Enhancements	14.0
	Total Near-Term Investment	**$750.3**

**in millions, based on year 2000 dollars.*

Relieving Congestion is a Top Priority Throughout the Pacific Surfliner Corridor

Maps Not to Scale.

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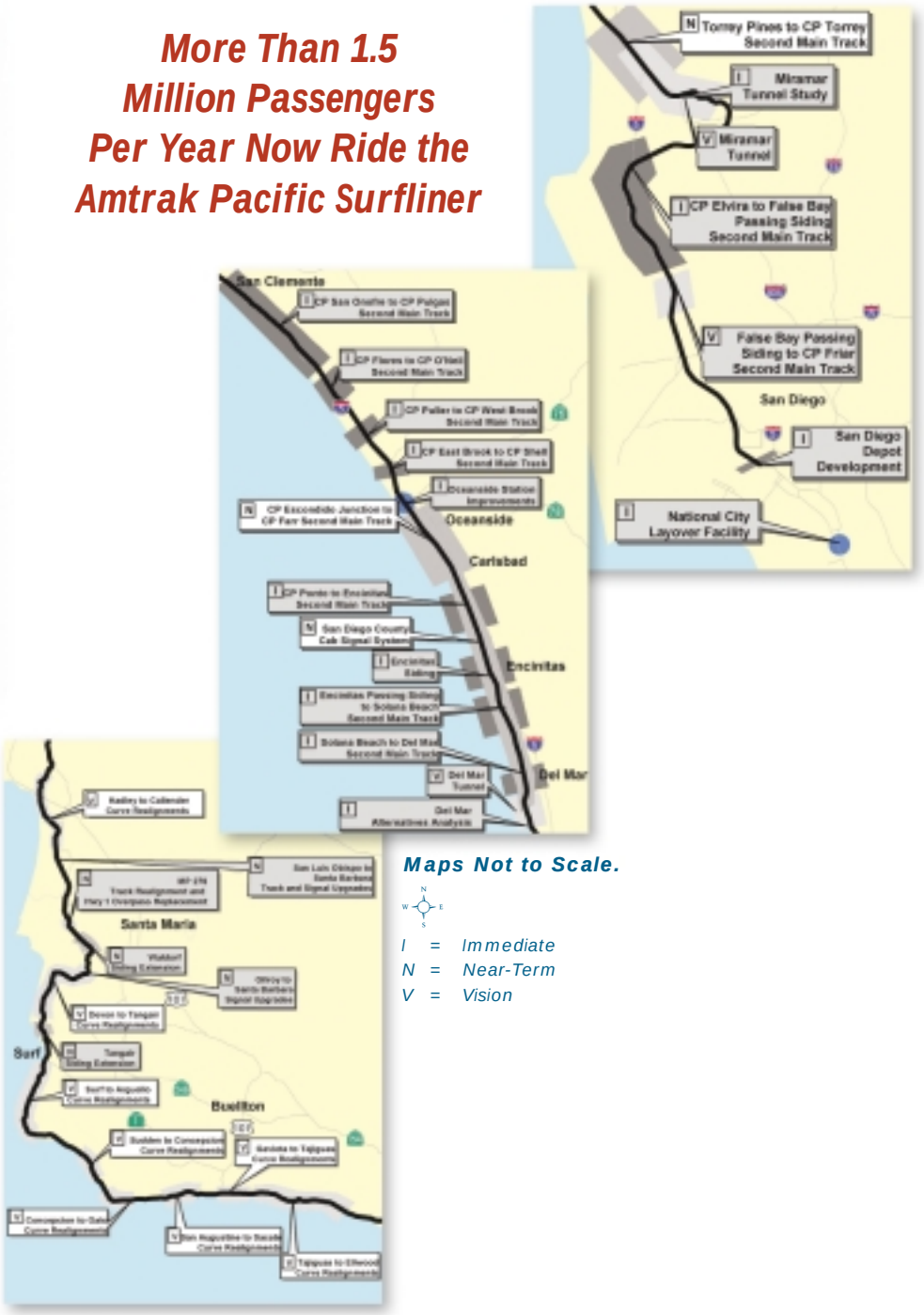
More Than 1.5 Million Passengers Per Year Now Ride the Amtrak Pacific Surfliner



Maps Not to Scale.

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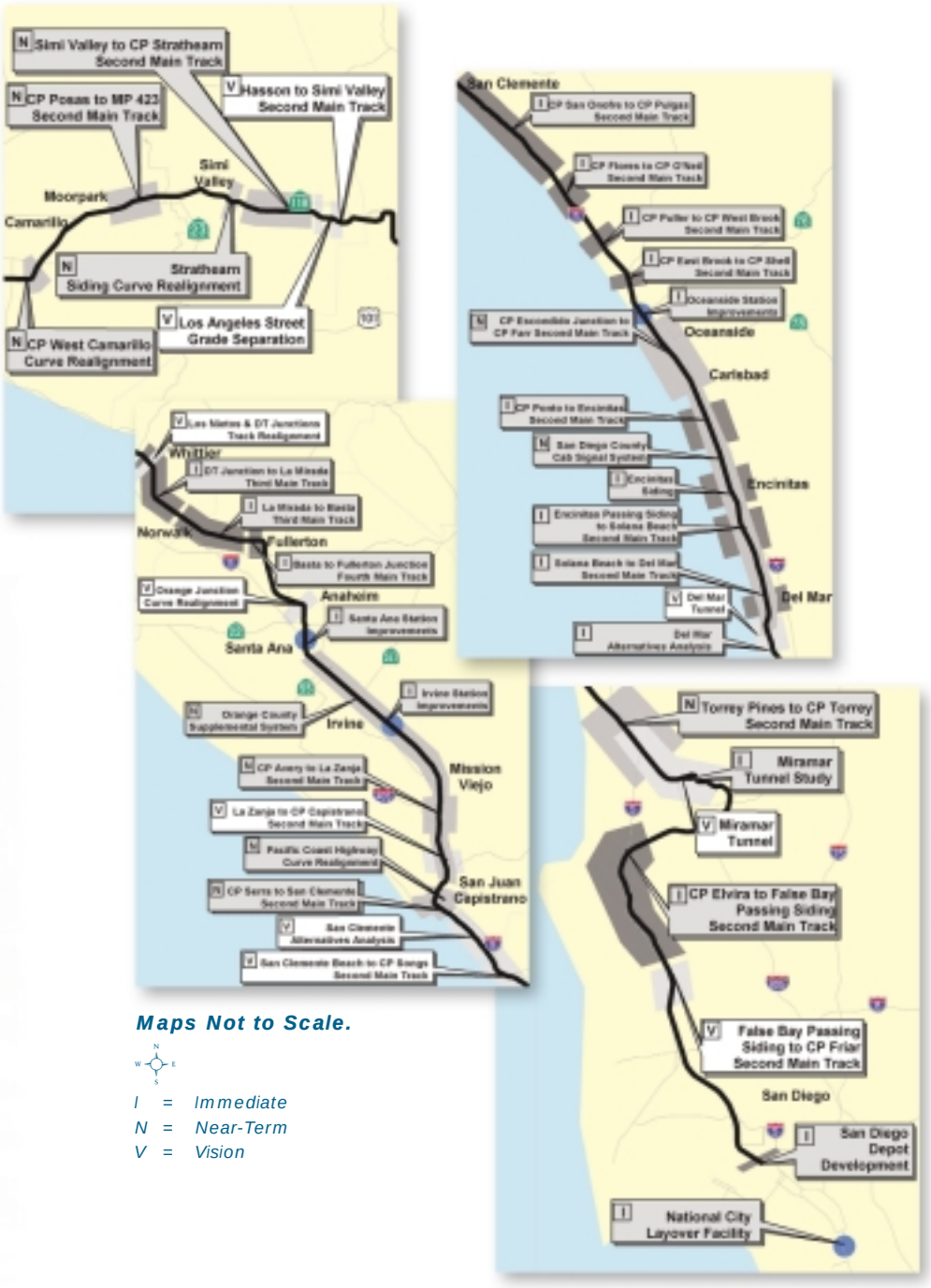
Vision Improvements (Implemented Within the Next 9 to 20 Years)

Project Number	Project Name	Total Cost*
PS-48	Hadley to Callender Curve Realignments	83.5
PS-49	MP 276 Track Realignment and Highway 1 Overpass Replacement	32.6
PS-50	Waldorf Siding Extension	8.3
PS-51	Devon to Tangair Curve Realignments	102.7
PS-52	Surf to Arguello Curve Realignments	106.7
PS-53	Sudden to Concepcion Curve Realignments	62.1
PS-54	Concepcion to Gato Curve Realignments	33.0
PS-55	San Augustine to Sacate Curve Realignments	89.7
PS-56	Gaviota to Tajiguas Curve Realignments	12.5
PS-57	Tajiguas to Ellwood Curve Realignments	50.2
PS-58	Los Angeles Street Grade Separation	48.6
PS-59	Hasson to Simi Valley Station Second Main Track	19.0
PS-60	Los Nietos and DT Junctions Track Realignment	94.8
PS-61	Orange Junction Curve Realignment	1.5
PS-62	La Zanja to CP Capistrano Second Main Track	14.1
PS-63	San Clemente Beach Second Main Track	323.2
PS-64	San Clemente Beach to CP Songs Second Main Track	192.5
PS-65	Del Mar Tunnel	354.3
PS-66	Miramar Tunnel	898.9
PS-67	False Bay Passing Siding to CP Friar Second Main Track	33.3
	Total Vision Investment	**$2,561.4**

**in millions, based on year 2000 dollars.*

Extending Rail Service Will Mitigate Highway Congestion and Improve Air Quality



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"Ridership in the Pacific Surfliner Corridor has been steadily growing and, with Amtrak's focus on improving frequency and travel times, rail travel will become an even more attractive choice in Southern California."

Julianne Nygaard,
Council Member, City of Carlsbad

Plan Produces Results

This planning effort for the Pacific Surfliner Corridor used stakeholder outreach, ridership modeling tools, and operational and engineering analyses to develop the appropriate train frequencies, travel times, operational reliability, and supporting infrastructure improvements required to meet the growing demand for service in the Pacific Surfliner Corridor.

The plan calls for hourly service between San Diego and Los Angeles with travel time of less than two hours and expanded service to Santa Barbara and San Luis Obispo. Implementing the 20-year plan will reduce the average running time between San Diego and Los Angeles by 37 percent compared to existing travel times. With the increased service and reduced travel times, annual ridership will increase from the current 1.57 million to over 5.76 million. The 20-year plan identifies $4.29 billion for infrastructure improvements, additional trains, and further analyses for route extensions. In addition, $1.1 billion has been identified for improvements to Metrolink's Antelope Valley, San Bernardino, and Riverside lines.

With Amtrak, BNSF, UPRR, Metrolink, and Coaster trains on the Pacific Surfliner Corridor, it is essential that the projects proposed in the 20-year plan be implemented to meet future service goals. For example, several of the immediate projects (i.e., those implemented within the next three years) build on the improvements created by the Alameda Corridor Project. These projects are the new Los Angeles to Fullerton Junction Third Main Track (PS-06) and Basta to Fullerton Junction Fourth Main Track (PS-07). Both projects will add third and fourth main tracks in the busy corridor section between Redondo Junction and Fullerton Junction to provide capacity to meet future passenger and freight service goals, improve reliability, and reduce delays caused by congestion. Near-term projects, such as the track and signal upgrades from San Luis Obispo to Santa Barbara (PS-26 and PS-27), will enhance the existing infrastructure by creating additional capacity and allowing additional trains to run. In addition, certain vision projects, such as the San Clemente Beach Second Main Track (PS-63) and the Del Mar Tunnel (PS-65), will provide additional capacity for the corridor.

san joaquin corridor

viable vision for the valley

As Population Explodes, Rail Service Expands

Rail is a critical transportation element for the San Joaquin Valley, whose population is expected to double over the next 40 years from 4.7 million to 9.9 million residents. Rail is a safe, reliable travel choice for this area, which is affected by winter weather and spring fogs. As California's Central Valley produces 250 crops worth $16 billion a year — roughly one-tenth of America's farm output[12] — freight rail service plays an integral role in ensuring the efficient transportation of the San Joaquin Valley's agricultural goods to market. Through-train intercity service currently exists between Bakersfield and both Sacramento and Oakland/San Francisco. The corridor now offers four daily roundtrips between Oakland/San Francisco and Bakersfield and one daily roundtrip between Sacramento and Bakersfield. With the completion of a major track upgrade program, currently underway, another roundtrip will be added between Bakersfield and Sacramento.

As the San Joaquin Valley's Population Expands, Its Rail Service Increases

The San Joaquin Valley Corridor is currently divided into three freight rail territories: the Burlington Northern Santa Fe (BNSF) line from Bakersfield to Port Chicago, the Union Pacific Railroad (UPRR) line from Port Chicago to Oakland, and the UPRR line from Stockton through Lodi and then to Sacramento. As the valley's population continues to grow, the importance of freight rail in the corridor will also increase.

One improvement that is key to expanding both freight and passenger rail service is the construction of longer segments of double main line track. Double tracking is needed to increase passenger service, reduce running times, and handle the

[12] USA Today, 1 March 2000.

already heavy and still growing volume of freight transportation.

Benefits Checklist

Within 20 years, the San Joaquin Valley Corridor will reap significant benefits, including:

- 300-percent increase in intercity ridership from 676,000 to 2.76 million riders.
- 2 new daily roundtrips between Bakersfield and Oakland/San Francisco.
- 3 new daily roundtrips between Bakersfield and Sacramento.
- Reduce schedules by as much as 1 hour, 20 minutes.
- Service to San Jose from Bakersfield.
- Enhanced freight mobility.
- ACE commuter expansion.

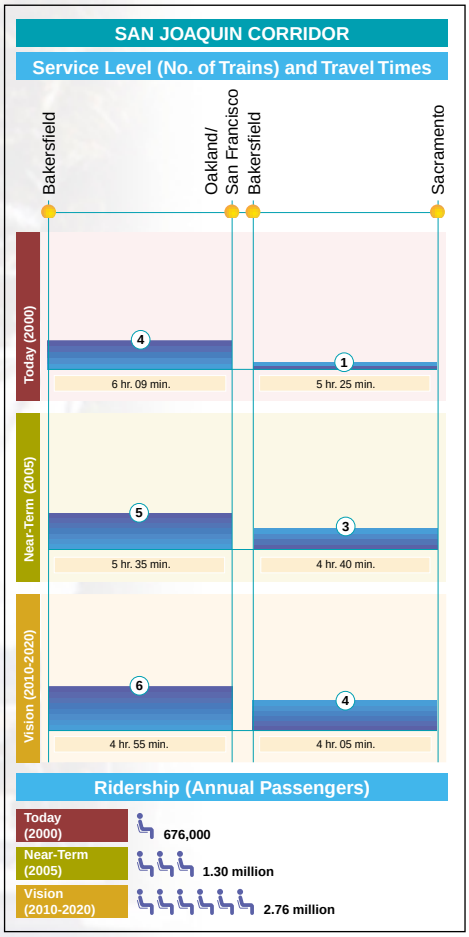
Significant Service Expansions on Track

Reducing trip times, increasing service to Sacramento and the Bay Area, and expanding ridership over the entire route are the primary goals of the 20-year rail improvement plan. Expansions for service in the San Joaquin Valley include:

- 5 daily roundtrips by 2005 between Bakersfield and Oakland/San Francisco, with eventual growth to 6 roundtrips at full build out.
- 3 daily roundtrips by 2005 between Bakersfield and Sacramento, with growth to 4 roundtrips at full build out.
- Initiate demonstration service between Bakersfield and San Jose by 2005.
- 300-percent increase in intercity ridership by 2020 to 2.76 million riders.
- 20-percent reduction in travel times from Bakersfield to Oakland/San Francisco — from 6 hours, 9 minutes down to 4 hours, 55 minutes.
- Over 25-percent reduction in travel times between Bakersfield and Sacramento — from 5 hours, 25 minutes down to about 4 hours.

Many of the rail improvements envisioned for the San Joaquin Valley Corridor will "spill over" to benefit both the Capitol Corridor and Altamont Commuter Express (ACE) service. For example, near-term improvements made to the Altamont Pass line will result in increased commuter-rail service between Stockton and San Jose with the potential to extend service to Modesto. Another benefit will come about as the region's commuter and intercity lines mature, allowing additional trains to be routed over the Altamont Pass to Niles Junction, where they can turn north to Oakland or south to San Jose. The ability to divert trains over the Altamont Pass will also allow an increase in Capitol Corridor trains between Oakland and Martinez — the point where the San Joaquin Valley and Capitol Corridors overlap.

Doubling of San Joaquin Valley's Population Over Next 40 Years Requires Rail Service Expansion

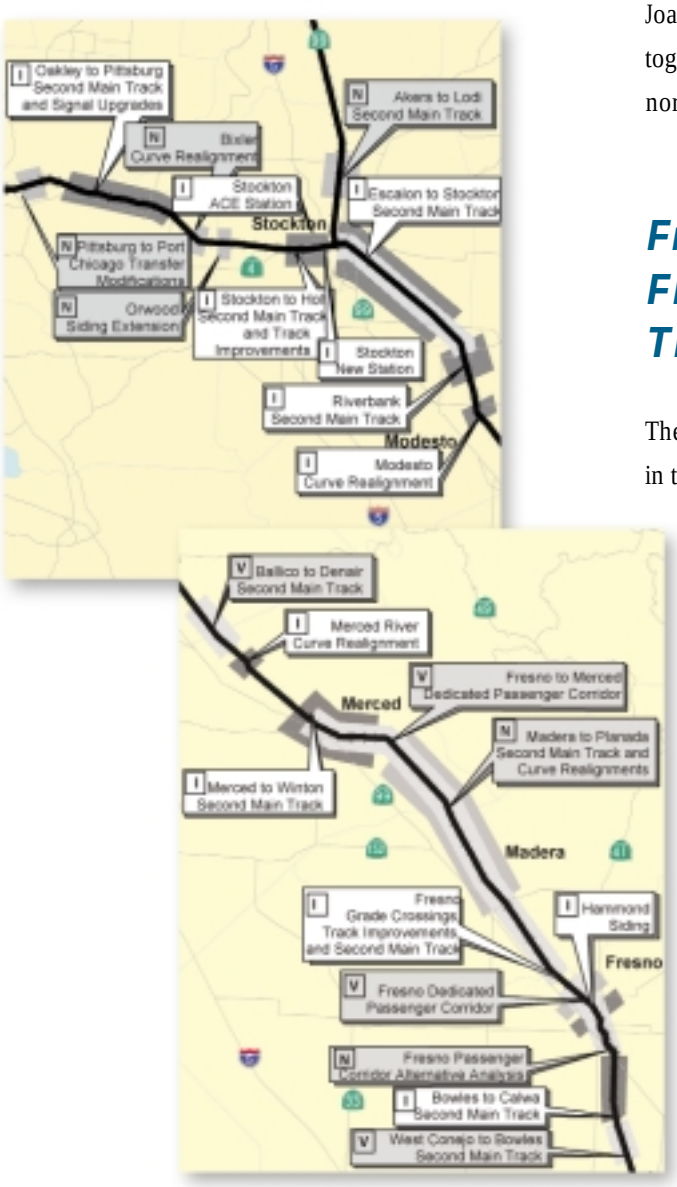


Freight Forges Forward As New Routes Extend Service

As population in the San Joaquin Valley grows, freight service must expand to carry the valley's produce and products to far-off markets and bring to the valley needed commodities, including food, consumer products, building materials, and other supplies to support its growing communities. BNSF, recognizing the growing role of freight rail in the San Joaquin Valley, has in recent years invested over $50 million in track and signal improvements and has plans for additional improvements in the corridor that will total over $20 million. Construction of longer segments of double main line track in the valley is critical to accommodating passenger service increases and reduced running times, while handling the heavy and growing volume of freight trains. By allowing both freight and passenger trains to quickly pass slower-moving trains without stopping either train, delays can be reduced and average speeds increased.

The primary freight corridor between northern and southern California is the route between Bakersfield and Los Angeles over the Tehachapi Mountains. Given the circuitous routing through the Tehachapi Mountains, direct passenger rail service to Los Angeles is currently unsuitable. Amtrak, Caltrans, and their partners will work with the California High-Speed Rail Authority (CA HSRA) in its plan to develop a rail corridor between Bakersfield and Los Angeles.

One Key Improvement is Construction of Longer Segments of Double Main Line Track



Another opportunity to extend passenger rail is the emerging corridor of Sacramento to Redding. Travel to Sacramento from outlying communities, such as Marysville, Yuba City, Chico, and Redding is on the rise. In response, Amtrak, Caltrans, and the San Joaquin Valley Rail Committee (SJVRC) are working together to evaluate the feasibility of expanding service north of Sacramento along this key growth corridor.

First Priority is Fast, Frequent Service Throughout the Valley

The heavy volume of freight and passenger rail traffic in the San Joaquin Valley Corridor results in congestion that delays all rail service. The *California Passenger Rail System 20-Year Improvement Plan* calls for such projects as the construction of a second main line track through the valley, upgraded signal systems, and grade-crossing improvements that will result in increased reliability, reduced congestion, and faster travel times. Immediate, near-term and vision projects call for an increase in the corridor's capacity to achieve these results.

Maps Not to Scale.

I = Immediate
N = Near-Term
V = Vision

Immediate Improvements (Implemented Within the Next 3 Years)

Project Number	Project Name	Total Cost*
SJ-01	Oakley to Pittsburg Second Main Track and Signal Upgrades	$88.9
SJ-02	Stockton to Holt Second Main Track and Signal	52.5
SJ-03	Stockton - New Station	2.0
SJ-04	Stockton - ACE Station	3.0
SJ-05	Escalon to Stockton Second Main Track	52.9
SJ-06	Modesto Curve Realignment and Riverbank Second Main Track	41.6
SJ-07	Merced River Curve Realignment	9.3
SJ-08	Merced to Winton Second Main Track	35.9
SJ-09	Fresno Grade Crossing and Track Improvements and Second Main Track	31.9
SJ-10	Hammond Siding	2.0
SJ-11	Bowles to Calwa Second Main Track	22.2
SJ-12	Hanford to Conejo Curve Realignments, Track Improvements, and Second Main Track	63.6
SJ-13	Shirley to Guernsey Second Main Track	42.9
SJ-14	Angiola to Corcoran Second Main Track	46.7
SJ-15	Jastro to Shafter Second Main Track	42.8
SJ-16	Corridor-wide Signal Upgrades	40.1
SJ-17	San Jose Demonstration Service	28.0
SJ-18	Rolling Stock	45.0
SJ-19	Passenger Service Enhancements and New Route Studies	4.0
	Total Immediate Investment	**$655.3**

**in millions, based on year 2000 dollars.*

Improvements Increase Capacity and Speed of Freight and Passenger Trains

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Immediate Improvements Include the Construction of Second Main Tracks With Further Development in Subsequent Phases

Maps Not to Scale.

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Near-Term Improvements (Implemented Within the Next 4 to 8 Years)

Project Number	Project Name	Total Cost*
SJ-20	Pittsburg to Port Chicago Transfer Modifications	$12.5
SJ-21	Bixler Curve Realignment	12.5
SJ-22	Orwood Siding Extension	14.4
SJ-23	Akers to Lodi Second Main Track	34.5
SJ-24	Madera to Planada Second Main Track and Curve Realignments	135.7
SJ-25	Fresno Passenger Corridor Alternative Analysis	2.0
SJ-26	Altamont Emerging Corridor Niles Canyon Track Improvements	3.4
SJ-27	Altamont Emerging Corridor Livermore to Pleasanton Second Main Track and Existing Sidings Upgrade	21.8
SJ-28	Altamont Emerging Corridor Altamont Pass Track Improvements and Existing Midway Siding Extension	7.8
SJ-29	Altamont Emerging Corridor Stockton to Lathrop to Tracy Track Alignment, Siding Extension, and Curve Realignment	24.4
SJ-30	Safety and Mobility Enhancements	14.0
	Total Near-Term Investment	**$283.0**

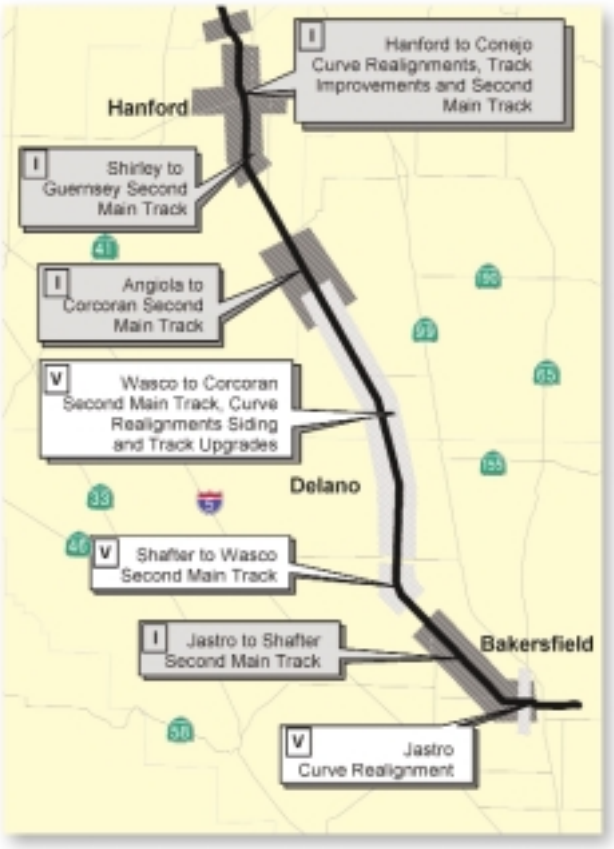
**in millions, based on year 2000 dollars.*

Vision Improvements (Implemented Within the Next 9 to 20 Years)

Project Number	Project Name	Total Cost*
SJ-31	Ballico to Denair Second Main Track	$25.0
SJ-32	Fresno to Merced Dedicated Passenger Corridor	405.7
SJ-33	Fresno Dedicated Passenger Corridor	283.8
SJ-34	West Conejo to Bowles Second Main Track	33.1
SJ-35	Wasco to Corcoran Second Main Track, Curve Realignments, Sidings, and Track Upgrades	143.3
SJ-36	Shafter to Wasco Second Main Track	25.7
SJ-37	Jastro Curve Realignment	35.3
	Total Vision Investment	**$951.9**

**in millions, based on year 2000 dollars.*

Increased Capacity Needed to Accommodate 2.76 Million Riders By 2020 — An Increase of Over 300 Percent



Maps Not to Scale.

I = Immediate
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V = Vision

Plan Produces Results

This planning effort used stakeholder outreach, ridership modeling tools, and operational and engineering analyses to develop the appropriate train frequencies, travel times, operational reliability, and supporting infrastructure improvements required to meet the growing demand for service in the San Joaquin Corridor.

The plan calls for six daily roundtrips between Bakersfield and Oakland/San Francisco and four between Bakersfield and Sacramento. It also includes a demonstration service to San Jose. Implementing the 20-year plan will reduce the average running time between Bakersfield and Oakland/San Francisco by 20 percent, while the running time between Bakersfield and Sacramento will be reduced 25 percent as compared to existing travel times. With the increased service and reduced trip times, annual ridership will increase from the current 676,000 to over 2.76 million. The 20-year plan identifies $1.89 billion for infrastructure improvements, additional trains, and further analysis for route extensions.

With Amtrak, BNSF, UPRR, and ACE trains on the San Joaquin Valley Corridor, it is essential that the projects proposed in the 20-year plan be implemented to meet future service goals. Several immediate projects, such as the addition of a second main track between Oakley and Pittsburg (SJ-01), will serve to increase capacity and improve operational reliability on the corridor. Near-term projects, such as the second main track between Madera and Planada (SJ-24), will enhance the existing infrastructure to create additional capacity and allow additional trains. In addition, certain vision projects, such as the addition of a second main track between Wasco and Corcoran (SJ-35), will also allow for increased frequency of service in the corridor.

"Continued growth of cities in the San Joaquin Valley mandates expanded and more efficient rail service in the San Joaquin Corridor; Amtrak's task force commissioning is a great first step in accomplishing this goal."

Stan Thurston,
City of Merced Council Member

coast corridor

connecting california's major cities

Direct Los Angeles/ San Francisco Service is First in 30 Years

The 470-mile-long Coast Corridor is the rail link between Los Angeles and San Francisco. In addition to serving travel needs between these two major cities, the corridor is an important travel choice for those seeking access to the coastal areas between Los Angeles and San Francisco and to the beaches, wineries, and other recreational activities in many of California's key tourist destinations. Coast Corridor rail service is a critical alternative to highway travel as well as a mechanism for supporting economic development in the communities along the corridor.

While both ends of the corridor are served by commuter and intercity trains, the only passenger line now offering corridor-wide service is Amtrak's *Coast Starlight*, whose alignment is from Los Angeles to Seattle. Pacific Surfliner service also serves a segment of the corridor on a route extending north of Los Angeles through Santa Barbara and on to San Luis Obispo.

The remedy for this lack of corridor-wide service from Los Angeles to San Francisco is the introduction of Coast Daylight service. Implementation of this service will begin with a single train traveling each way between downtown Los Angeles and downtown San Francisco — the first direct intercity service between Los Angeles and San Francisco in almost 30 years. As ridership increases, a second roundtrip will be added. Ultimately, Coast Daylight service will make the trip between Los Angeles and San Francisco in about eight hours.

470-Mile Coast Corridor Provides Service Between Los Angeles and San Francisco

"Rail-passenger service is in a renaissance. It is the most fuel- and labor-efficient and least polluting of all forms of transportation. At Caltrain, we are delighted to be a part of the proposed Coast Corridor service... Restoration of the famous 'Coast Daylight' is long overdue."

Arthur L. Lloyd,
Caltrain Board Member

Benefits Checklist

Within 20 years, the Coast Corridor will reap significant benefits, including:

- 420,000 new intercity riders.
- 2 new roundtrips between Los Angeles and San Francisco.
- 4 new roundtrips between Monterey/Salinas and San Francisco.
- Reduce schedule by 4 hours between Los Angeles and San Francisco.
- Improved and expanded commuter-rail service.
- Improved Amtrak *Coast Starlight* intercity service.
- Enhanced freight mobility.

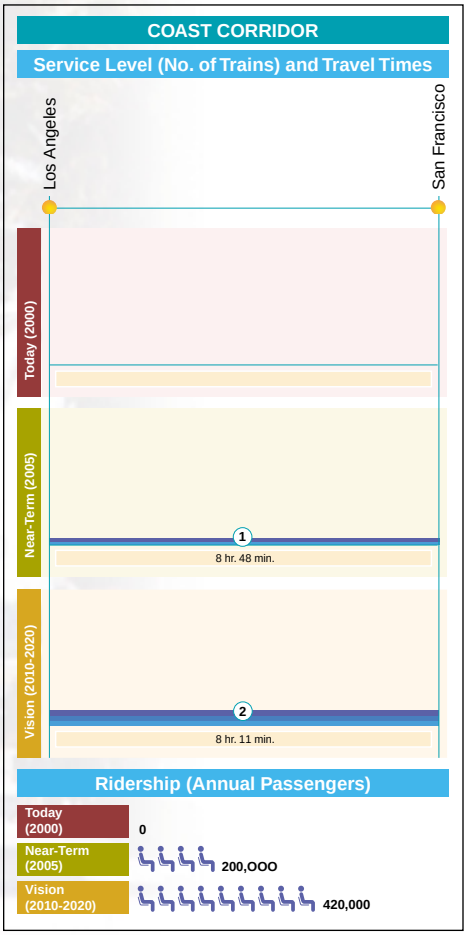
Expansion of Commuter and Intercity Service

Providing service between Los Angeles and San Francisco is a primary goal of the 20-year rail improvement plan. So too is the provision of much-needed passenger service to the growing communities south of Gilroy, whose development has been bolstered by the explosive growth of the Silicon Valley. Because service to Salinas and Monterey is such a critical need, implementation is proposed within the first five years of the 20-year plan with service comprising four daily roundtrips to San Francisco, two weekday roundtrips to Salinas during peak hours, and two daily trains at midday to Monterey. In addition, the San Benito County Council of Governments will use a portion of the Coast Corridor to bring commuter service to Hollister by providing two weekday, peak-hour roundtrips.

The Peninsula Corridor Joint Powers Board (PCJPB) operates the Caltrain commuter service between San Francisco and Gilroy and owns, operates, and maintains the line from San Francisco to San Jose. Because the Coast Daylight will operate as express service between San Jose and San Francisco, Amtrak, Caltrans, and Caltrain will work in partnership to implement the specific needed improvements, such as new third and fourth main tracks, station improvements, and signal enhancements.

Expanded commuter and intercity service will converge at the Diridon Station in San Jose, which is already severely congested. Relieving that congestion will be a primary objective of the improvements in this area.

Coast Corridor Rail Service Provides Economical Alternative to Highway Travel for Residents of Growing Coastal Communities



Commuter and Intercity Service Will Be Greatly Expanded

Maps Not to Scale.

I = Immediate
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Corridor is Important Through-Route for Freight

The Coast Corridor is also ripe for an expansion of freight-rail service. The Union Pacific Railroad (UPRR) owns and operates the Coast Corridor tracks from San Jose to Los Angeles. UPRR, which views the corridor as an important through-route for freight, already has significant freight traffic in the northern part of the Coast Corridor - the result of transporting aggregate from the Watsonville area to cement plants in the Bay Area. UPRR also serves oil operations in the Salinas Valley and anticipates additional petroleum shipments from producers in the area of the Santa Barbara Channel.

To preserve mobility for freight-rail traffic, the 20-year plan for the Coast Corridor includes adding tracks, such as second main track segments between San Jose and Gilroy. These projects will have the added benefit to freight trains of providing more locations to meet opposing trains. In the congested San Jose terminal area, the proposed improvements — including a fourth main track from Santa Clara to San Jose — will result in increased operational flexibility and reliability.

Coast Daylight Service is Top Priority

Reintroducing the Coast Daylight train, providing additional service to Coast Corridor communities, and adding service to key markets in Salinas and Monterey are the goals of the projects specified for the Coast Corridor in the *California Passenger Rail System 20-Year Improvement Plan*. Immediate, near-term, and vision projects focus on track and signal upgrades, additional main track, new trains, and realigned curves - all of which will allow for added capacity, reduced trip times, and improved reliability.

"Our goal is to incrementally upgrade the Coastal Route so that passenger rail is convenient and running times are more competitive with automobile travel."

Dave Potter,
Monterey County Supervisor

Immediate Improvements (Implemented Within the Next 3 Years)

Project Number	Project Name	Total Cost*
CO-01	San Jose (Tamien) to Gilroy Second Main Track	$75.5
CO-02	Gilroy to San Luis Obispo Track Upgrades	84.5
CO-03	Gilroy to San Luis Obispo Signal Upgrades	71.9
CO-04	Pajaro, King City and Salinas Stations	7.3
CO-05	Monterey Branch Upgrades	23.7
CO-06	Rolling Stock – Modern Tilt Intercity Equipment	30.0
CO-07	Rolling Stock – Modern Intercity Equipment	30.0
CO-08	Passenger Service Enhancements	3.0
	Total Immediate Investment	**$325.9**

**in millions, based on year 2000 dollars.*

Key Service Will Be Provided to Communities Along the Central Coast

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Near-Term Improvements (Implemented Within the Next 4 to 8 Years)

Project Number	Project Name	Total Cost*
CO-09	Sargent to Aromas Curves Realignments	$122.2
CO-10	Watsonville Wye Curves Realignments	11.2
CO-11	San Lucas Siding	7.5
CO-12	Bradley Siding Extension	8.2
CO-13	Cuesta Second Main Line Track	114.9
CO-14	Safety and Mobility Enhancements	14.0
	Total Near-Term Investment	**$278.0**

**in millions, based on year 2000 dollars.*

Track and Curve Realignments Will Increase Train Speed and Allow for Reduced Travel Times

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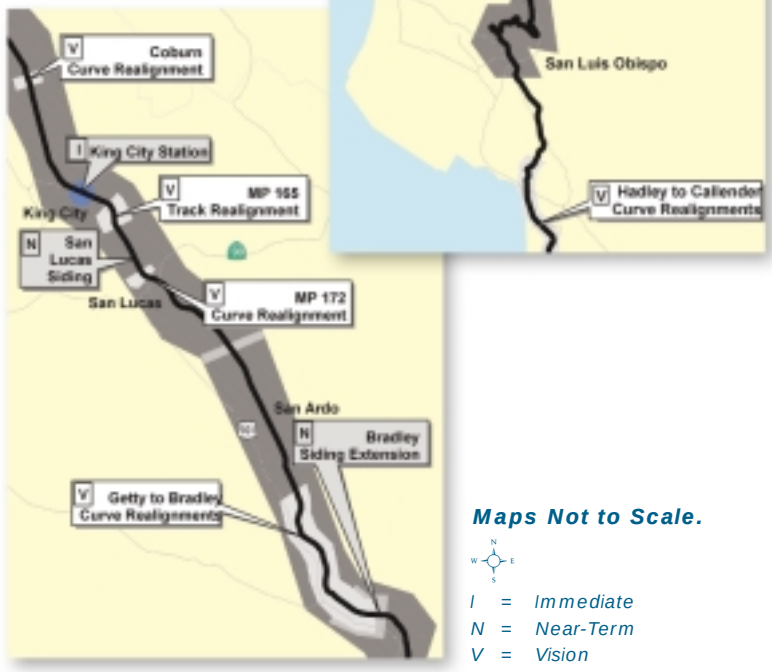
Vision Improvements (Implemented Within Next 9 to 20 Years)

Project Number	Project Name	Total Cost*
CO-15	Moss Landing Curve Realignments	$2.5
CO-16	Castroville Siding Extension	6.6
CO-17	Spence Siding	15.4
CO-18	Chalone Creek Siding	15.7
CO-19	Harlem to Metz Track Realignment	27.9
CO-20	Coburn Curve Realignment	0.7
CO-21	MP 165 Track Realignment	19.6
CO-22	MP 172 Track Realignment	1.4
CO-23	Getty to Bradley Curve Realignments	25.2
CO-24	McKay to Wellsona Curve Realignments	10.5
CO-25	Wellsona Siding	14.9
CO-26	Wellsona to Paso Robles Curve Realignments	64.6
CO-27	Templeton Siding Extension	10.0
CO-28	Templeton to Henry Curve Realignments	73.4
CO-29	Henry to Santa Margarita Curve Realignments	31.2
	Total Vision Investment	**$319.6**

**in millions, based on year 2000 dollars.*

420,000 Passengers Will Ride Coast Corridor Trains By 2020



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Plan Produces Results

This planning effort used stakeholder outreach, ridership modeling tools, and operational and engineering analyses to develop the appropriate train frequencies, travel times, operational reliability, and supporting infrastructure improvements required to meet the demands for service in the Coast Corridor.

The plan calls for the immediate addition of one roundtrip between downtown Los Angeles and downtown San Francisco and a second roundtrip as ridership demand grows. Annual ridership will grow to 420,000. The 20-year plan identifies $927 million for infrastructure improvements and additional trains. This investment will have significant benefits to Caltrain service, with over $400 million planned for the San Jose to San Francisco segment of the corridor. In addition, it will allow for implementation of the Monterey-Salinas-San Francisco as well as Hollister commuter service.

With Amtrak, UPRR, Metrolink and Caltrain trains on the Coast Corridor, it is essential that the projects proposed for this corridor in the *California Passenger Rail System 20-Year Improvement Plan* be implemented to meet future service goals. Several immediate projects, such as the San Jose (Tamien) to Gilroy Second Main Track (CO-01), will increase capacity and improve operational reliability on the corridor. Near-term projects, such as the Cuesta Second Main Line Track (CO-13), will enhance the existing infrastructure by creating additional capacity and allowing additional trains to be run. A majority of the vision projects directly and significantly decrease trip times by realigning curves so that trains can operate at increased speeds through those areas.

The 20-year plan provides a blueprint that meets the needs of communities along the Coast Corridor by initiating Coast Daylight service and service to Monterey and Salinas. For all rail stakeholders, the improvements proposed in the plan will provide capacity, reduce congestion, and result in faster speeds and reduced trip times — all of which will allow intercity, commuter, and freight rail users to maintain mobility as service expands.

implementing the 20-year rail improvement plan

Environmental Considerations

The previous sections of this summary report have provided an overview of the improvements to be implemented within each of the four rail corridors. While physical conditions and rail-related needs differ in each corridor, the majority — if not all — of the improvements must conform to the terms and conditions of the National Environmental Policy Act (NEPA). Many of the improvements must also be reviewed for adherence to the provisions of the California Environmental Quality Act (CEQA).

It is possible that some of the improvements in each corridor will qualify for NEPA Categorical Exclusions or CEQA Categorical or Statutory Exemptions. It is also possible that some improvements will require more in-depth environmental documentation if their initial review determines potentially significant negative environmental or social impacts.

Environmental reviews and documentation can affect the implementation schedule. Permits and approvals must be obtained from federal, state, and local agencies before construction can begin. If the permits and approvals are not sought in a timely, well-coordinated manner, implementation of an improvement can be delayed until the review process has been completed.

The rail improvements also have the potential to result in positive impacts, particularly in regard to urban revitalization and/or transit-supportive development.

Funding Investments

Over the next five years, Amtrak, in partnership with other state rail providers and planning agencies, will implement in the Capitol, Pacific Surfliner, San Joaquin Valley, and Coast Corridors those improvements that are critical to maintaining current service levels and supporting high-priority service expansions. The improvements to be put into place within the next five years are those with immediate priority as well as the front-ranking near-term improvements.

Funding of these improvements can come from a variety of sources in both the public and private sectors. Presentations will be made to federal, state, and local government agencies to acquaint these entities about the scope and objectives of the five-year freight and passenger rail improvements. These presentations will help to determine the funding allocations.

Several funding mechanisms have been identified, including:

- Federal programs, such as the High-Speed Rail Investment Act.
- State General Funds and Gas Tax Revenues.

implementing the 20-year rail improvement plan

- State Transportation Improvement Program (STIP), which pertains to both the interregional and regional improvements.
- California Statewide Bond Issues.
- California County Expenditure Plans.

The current availability of state and federal funding sources represents a unique opportunity to begin resolving California's passenger and freight mobility issues by initiating the improvements identified for implementation.

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